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No. 95-1072

Supreme Court, U.S.
FILED
FEB 5 1996

IN THE

# Supreme Court of the United States

October Term, 1995

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COMBUSTION ENGINEERING, INC., *Petitioner,*

*v.*

CHERYL MALOOF JOHANSEN, *et al.*, *Respondents.*

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ON PETITION FOR A WRIT OF CERTIORARI TO THE
UNITED STATES COURT OF APPEALS FOR THE ELEVENTH CIRCUIT

## OPPOSITION TO PETITION FOR A WRIT OF CERTIORARI

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115 pp

## EDITOR'S NOTE

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# TABLE OF CONTENTS


STATEMENT OF THE CASE ..... 1

1. Combustion severely understates the extent of its pollution ..... 3

2. Combustion severely understates the extent of the environmental devastation ..... 4

3. Combustion had ample prior notice of the pollution ..... 5

4. Combustion deliberately refused to adopt adequate cleanup measures. ..... 7

REASONS FOR DENYING THE WRIT ..... 13

I. THE $15 MILLION AWARD IS NOT EXCESSIVE ..... 13

A. The Award Is Eminently Reasonable Under Each of the Familiar Factors ..... 13

1. The reprehensibility of Combustion's misconduct ..... 13

2. Combustion's actual $6 million gain ..... 16

3. Combustion's wealth ..... 20

4. Combustion's arbitrary and meaningless computed "ratios" ..... 21

B. This Case is Unrelated to *BMW v. Gore* ..... 23

II. THE SECOND QUESTION IS NOT PRESENTED AND HAS NO MERIT ..... 25

CONCLUSION ..... 30

# TABLE OF AUTHORITIES

**CASES**

*Abney v. United States*, 431 U.S. 651 (1977) ..... 3
*AJ & AJ Servicing Inc. v. Tudor Associates Ltd.*,
115 S. Ct. 1957 (1995), (cert. denied) ..... 25
*American Business Interiors, Inc. v. Haworth, Inc.*,
798 F.2d 1135 (8th Cir. 1986) ..... 27
*Anthony v. G.M.D. Airline Serv. Inc.*,
17 F.3d 490 (1st Cir. 1994) ..... 30
*Barry v. Edmunds*, 116 U.S. 550 (1886) ..... 15
*Benny M. Estes & Assocs. v. Time Ins. Co.*
980 F.2d 1228 (8th Cir. 1992) ..... 27
*Big Apple BMW, Inc. v. BMW of North America, Inc.*, 974 F.2d
1358 (3d Cir. 1992), *cert. denied*, 113 S. Ct. 1262 (1993) ... 4
*BMW of North America v. Gore*, No. 94-896 ..... 1, 13, 23-25
*Boyajian v. Olfacto-Labs*, 115 S. Ct. 2247 (1995), (cert. denied) 25
*Browning-Ferris Indus. v. Kelco Disposal, Inc.*,
492 U.S. 257 (1989) ..... 18, 20, 22
*Brunnemann v. Terra Int'l, Inc.*, 975 F.2d 175 (5th Cir. 1992) .. 30
*Capstick v. Allstate Ins. Co.*, 998 F.2d 810 (10th Cir. 1993) .... 27
*Cash v. Beltmann North America Co.*,
900 F.2d 109 (7th Cir. 1990) ..... 20
*Cincinnati Ins. Co. v. Orangeburg Sausage Co.*,
116 S. Ct. 331 (1995) (cert. denied) ..... 25
*Combustion Engineering, Inc. v. Spires*, 209 Ga. App. 240,
433 S.E.2d 60 (1993), *cert. denied*,
1993 Ga. LEXIS 969 (Oct. 12, 1993) ..... 12, 21, 24
*Day v. Woodworth*, 54 U.S. (13 How.) 363 (1851) ..... 15
*Dunn v. HOVIC*, 1 F.3d 1371 (3d Cir.) (in banc),
*cert. denied*, 114 S. Ct. 650 (1993) ..... 20, 27, 30
*Edwards v. Beach*, 3 Day 447 (Conn. 1809) ..... 17
*Eichenseer v. Reserve Life Ins. Co.*,
934 F.2d 1377 (5th Cir. 1991) ..... 21
*Eiland v. Westinghouse Elec. Corp.*, 58 F.3d 176 (5th Cir. 1995) 27
*Ezzone v. Hansen*, 115 S. Ct. 1958 (1995) (cert. denied) ..... 25
*Ferrellgas Inc. v. Clay*, 115 S. Ct. 1102 (1995) (cert. denied) .. 25

**CASES – CONTINUED**

*General Motors Corp. v. Moseley*,
447 S.E.2d 302 (Ga. App. 1994) ..... 22
*Getty Petroleum v. Island Transp. Corp.*,
878 F.2d 650 (2d Cir. 1989) ..... 27
*Gust v. Levy*, 116 S. Ct. 171 (1995), (cert. denied) ..... 25
*Hewlett v. Cruchley*, 128 Eng. Rep. 696 (K.B. 1813) ..... 22
*Homestead Ins. Co. v. Zoppo*, 116 S. Ct. 56 (1995) (cert. denied) 25
*Honda Motor Co. v. Oberg*, 114 S. Ct. 2331 (1994) ..... 3
*Kazan v. Wolinski*, 721 F.2d 911 (3d Cir. 1983) ..... 27
*Kientzy v. McDonnell Douglas Corp.*,
990 F.2d 1051 (8th Cir. 1993) ..... 27
*Kingsley Mill Corp. v. Edmonds*, 67 S.E.2d 111 (Ga. 1951) .... 17
*Mattison v. Dallas Carrier Corp.*, 947 F.2d 95 (4th Cir. 1991) . 18
*Merest v. Harvey*, 128 Eng. Rep. 761 (C.P. 1814) ..... 14
*Minneapolis St. P. & S. Ste. M. Ry. v. Moquin*
283 U.S. 520 (1931) ..... 26
*Missouri Pacific R. Co. v. Humes*, 115 U.S. 512 (1885) ..... 15
*New Orleans, J., & Great N.R. v. Hurst*, 36 Miss. 660 (1859) .. 22
*Newport v. Fact Concerts, Inc.*, 453 U.S. 247 (1981) ..... 28
*Newton v. NBC*, 930 F.2d 662 (9th Cir. 1990),
*cert. denied*, 502 U.S. 866 (1991) ..... 27
*Norton v. Caremark, Inc.*, 20 F.3d 330 (8th Cir. 1994) ..... 27
*O'Quinn v. Kline*, 115 S. Ct. 2579 (1995) (cert. denied) ..... 25
*Ohio v. United States Dept. of Interior*,
880 F.2d 432 (D.C. Cir. 1989) ..... 15
*Ohio-Sealy Mattress Mfg. Co. v. Sealy, Inc.*, 585 F.2d 821
(7th Cir. 1978), *cert. denied*, 440 U.S. 930 (1979) ..... 30
*Pacific Mutual Life Ins. Co. v. Haslip*,
499 U.S. 1 (1991) ..... 14, 15, 17, 20, 22, 23
*Pulley v. Harris*, 465 U.S. 37 (1984) ..... 22
*Raucci v. Town of Rotterdam*, 902 F.2d 1050 (2d Cir. 1990) ... 27
*Sears v. Lyon*, 171 Eng. Rep. 658 (K.B. 1818) ..... 14
*St. Louis, Iron Mountain & So. Ry. v. Williams*,
251 U.S. 63 (1919) ..... 19, 22
*Satterfield v. Rowan*, 9 S.E. 677 (Ga. 1889) ..... 17
*Scala v. Moore McCormack Lines, Inc.*,
985 F.2d 680 (2d Cir. 1993) ..... 27

**CASES – CONTINUED**

*Seidman v. American Airlines, Inc.*,
923 F.2d 1134 (5th Cir. 1991) ..... 30
*Smithtown, N.Y. v. Walz*, 115 S. Ct. 2557 (1995) (cert. denied) . 25
*Superbird Farms, Inc. v. Perdue Farms, Inc.*,
970 F.2d 238 (7th Cir. 1992) ..... 30
*Transportation Ins. Brokers, Inc. v. D.W. Ferguson & Associates*, 116 S. Ct. 86 (1995) (cert. denied) ..... 25
*Tullidge v. Wade*, 95 Eng. Rep. 909 (C.P. 1769) ..... 22
*TXO Production Corp. v. Alliance Resources, Inc.*,
113 S. Ct. 2711 (1993) ..... 3-4,14, 17, 20, 22-23, 28-30
*United States v. Shelton*, 848 F.2d 1485 (10th Cir. 1988) ..... 4
*Van Klassens, Inc. v. Imagineering, Inc.*,
116 S. Ct. 277 (1995) (cert. denied) ..... 25
*Washington Gas Co. v. Lansden*, 172 U.S. 534 (1899) ..... 20
*Waters-Pierce Oil Co. v. Texas*, 212 U.S. 86 (1909) ..... 17
*Wilkes v. Wood*, 98 Eng. Rep. 489 (C.P. 1763) ..... 22

**STATUTES**

Official Code of Georgia Annotated (O.C.G.A.):
§ 12-5-52(a) ..... 16
§ 12-5-53(a), (c) ..... 16
§ 51-9-7 ..... 17
§ 51-12-5.1(b) ..... 1
§ 51-12.5.1(f) ..... 1, 15

**MISCELLANEOUS**

*$129 Million Settlement Reached in Love Canal Case*,
Legal Intelligencer, Dec. 22, 1995 ..... 16
*Acknowledging Mistakes, Con Ed Takes Steps to Mend Its Ways*, N.Y. Times, Dec. 11, 1994 ..... 16
*Appeal & Error*, 5 Am. Jur.2d § 944 (1962 & 1995 supp.) .... 30
Calabresi & Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*,
85 HARV. L. REV. 1089 (1972) ..... 18-19

**MISCELLANEOUS – CONTINUED**

Ronald H. Coase, *The Problem of Social Cost*, 3 J. LAW & ECON. 1 (1960) ..... 19
*Companies Agree to Pay $40 Million to Clean Up Delaware Superfund Site*, BNA Nat'l Envt'l Daily, Apr. 25, 1995 ... 16
*Exxon to Pay $25 Million More in Spill Deal*, USA Today, Oct. 1, 1991 ..... 16
G. Field, *Law of Damages* (1876) ..... 14
Haddock, McChesney & Spiegel, *An Ordinary Economic Rationale for Extraordinary Legal Sanctions*, 78 Calif. L. Rev. 1 (1990) ..... 19
*Kodak to Pay $8 Million for RCRA Violations*, Haz. Waste Bus., Oct. 19, 1994 ..... 16
*Landfill Cleanup Suit Settled*, Denver Post, May 8, 1993 ..... 16
*Localities, Waste Haulers to Pay $63 Million for Operating Industries Site*, BNA Chem. Reg. Daily, Jan. 3, 1995 ..... 16
*Lumber Firm Fined Millions for Polluting*, Chi. Trib., May 25, 1993 ..... 16
McChesney, *Deception, Trademark Infringement, and the Lanham Act: A Property-Rights Reconciliation*, 78 VA. L. REV. 49 (1992) ..... 19
*Pollution Case Cost Inland $54 Million*, Chi. Trib., Mar. 10, 1993 ..... 16
Richard Posner, ECONOMIC ANALYSIS OF LAW (4th ed. 1992) .. 18
Richard Posner, *An Economic Theory of the Criminal Law*, 85 COLUM. L. REV. 1193 (1985) ..... 20
*Punitive Damages: Relationship to Defendant's Wealth*, 87 A.L.R.4th 141 (1992) ..... 20
Restatement (Second) of Torts § 908(2) & comment e (1977) .. 20
T. Sedgwick, *Measure of Damages* (4th ed. 1868) ..... 22
Settlements, Nat. L.J., Feb. 5, 1996 ..... 16
*Smelting Facility Agrees to $205 Penalty for Alleged Violations*, Mich. Envt'l Compliance Update 1, June 1995 . 16
Three Strikes and Out, Engineering News Record, Mar. 28, 1994 16
Toy, Note, *Statutory Punitive Damage Caps and the Profit Motive: An Economic Perspective*, 40 EMORY L.J. 303 (1991) .... 19

## STATEMENT OF THE CASE

Petitioner Combustion Engineering, Inc. ("Combustion") challenges a $15 million punitive award for environmental devastation that it caused in Lincoln County, Georgia. Combustion contends that the "uncontroverted evidence" and facts "taken in the light most favorable to the verdict," Pet. 2, show that it diligently sought to prevent acidic water from poisoning the four streams around Graves Mountain; that it complied with all pertinent environmental regulations; that, despite its best efforts, polluted water would "sometimes" escape into respondents' streams "during heavy rains," Pet. 3; and that, "[a]t the end of the day, the *very worst* that can be said of [Combustion's] conduct is that it involved the failure *to do more* to prevent *any possible harm* to plaintiffs' property." Pet. 16 (emphasis in original).

Combustion's argument is a desperate effort to reinvent the case in this Court and manufacture a supposed resemblance to *BMW of North America v. Gore*, No. 94-896. The record shows that throughout its two decades of mining on Graves Mountain, Combustion knew that, absent concerted efforts at *reclamation* (i.e., long-term restoration) and *remediation* (i.e., immediate pollution treatment), its operations would inevitably produce huge quantities of toxic pollutants that would flow into respondents' streams. To make as much profit as possible, Combustion engaged in only trivial reclamation efforts and made no attempts at remediation. Not until 1991, five years after mining stopped, did Combustion begin any remediation efforts on any of respondents' streams. Even then, Combustion acted only because it was ordered to do so by state authorities and had already been sued by respondents.

This case was brought under a Georgia tort-reform statute by 23 owners of 16 parcels of land affected by four streams polluted by Combustion. In order to recover any punitive damages at all, respondents were required to prove – by clear and convincing evidence – that Combustion's actions "showed willful misconduct, malice, fraud, wantonness, oppression, or that entire want of care which would raise the presumption of conscious indifference to consequences." O.C.G.A. § 51-12-5.1(b). In order to recover more than $250,000 each, respondents were required to demonstrate – again by clear and convincing evidence – that Combustion acted "with the specific intent to cause harm." *Id.* at § 51-12-5.1(f). A 12-member jury, the United States District Court for the Southern District of Georgia, and the Eleventh Circuit Court of Appeals all found unanimously that respondents had made the requisite showings.

Combustion concededly retained at least $6 million in extra profits as a result of its wrongful actions. Asked to return a punitive damages award that would "take the profit out of polluting," punish Combustion's intentional trespass on property rights, and deter similar economically motivated wrongdoing in the future, A75:35-40,[1] the jury awarded $45 million in punitive damages.

On post-trial review, the district judge deliberated over the amount of the verdict for ten months and ultimately concluded that, despite the evidence of Combustion's egregious conduct, the award was greater than the amount strictly necessary to punish and deter such wrongdoing. He therefore issued a remittitur that saved Combustion $30 million. In doing so, however, at an extensive post-trial hearing – whose transcript Combustion quotes selectively and which is curiously missing from the appendix to the petition – the district judge scolded Combustion for advancing an argument, now recycled for use in this Court, that was "raked out of the coals of this trial." A8:30-32. The court rejected Combustion's theory that it was an innocent trespasser that had acted reasonably and in compliance with applicable environmental regulations, but nonetheless had been "brought over a barrel and was now required to cough up an extraordinary amount, an exorbitant amount, of exemplary damages through some sort of extortion that was arbitrary and capricious on the part of the jury." It bluntly stated: "that's not the case." A8:30-38.

The Eleventh Circuit affirmed. The Court of Appeals determined that the case involved such a routine application of settled legal principles that it declined to issue a published opinion, finding that "an opinion would have no precedential value." Pet. App. 2a & n.1.[2]

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[1] Citations to the Appendices hereto are styled "A[page]:[line(s)]". The district court's findings with respect to petitioner's post-trial motion are reprinted in full in **Appendix A** hereto. **Appendix B** reprints all portions of the trial transcript cited in this opposition. **Appendix C** reprints PX-3, an aerial color photograph of the minesite taken in Spring, 1991, shortly before this lawsuit was brought.

[2] The Eleventh Circuit was no doubt influenced by the fact that Combustion's argument – like its argument before this Court – rested on a highly partisan, one-sided account in which Combustion's main defense was that it supposedly had no notice of the ongoing pollution. Such distortions of the record are not permitted by the Eleventh Circuit's rules. *See* Appellees' Ct. App. Br. 1 (Jan. 6, 1995) (noting that Combustion's brief violated 11th Cir. Rule 28-2(h)(ii)). Combustion's claim (Pet. 19 n.13) that the Eleventh Circuit's compliance with its usual operating procedures

Combustion's attack on the judgment below is premised on a wide range of distortions of the record:

**1.** ***Combustion severely understates the extent of its pollution.*** Combustion admits that its full-scale kyanite surface-mining operation on Graves Mountain had some (euphemistically described) "environmental consequences," but misrepresents their scope and inaccurately suggests that they were typical of "many industrial processes." Pet. 3. Combustion excavated huge quantities of rock, exposed them to the air and rainfall, ground them down, and mixed them with water and sulfuric acid to separate out the unwanted dirt and minerals (called "tailings"). **A46**:5-10, **A66**:22-25. Combustion then disposed of the tailings by harnessing the water used in the milling process to transport them down the mountainside. **A24**:10-15, **A46**:15-29. Operating 24 hours a day, seven days a week, for over two decades, **A33**:5-19, Combustion's mining operation eventually removed "the top part of the mountain," **A17**:18-27, and reduced the site to a cratered, rock-strewn plateau whose sides were pock-marked with at least 166 acres of open ditches, dams and tailings ponds. *See* DX-12 at 1, 4-5; *see also* PX-3 (aerial photograph of minesite taken in 1991) (Appendix C hereto, at **A77**).

The tailings in these open storage pits contained huge quantities of pyrite which, when crushed and exposed to water and oxygen, creates sulfuric acid. **A24**:10–**A25**:16. By failing to reclaim the land, Combustion created a "continuous supply . . . of sulfuric acid" that caused the water to become dangerously acidic (by lowering its pH) and to dissolve and transport heavy metals like iron, manganese, and aluminum. **A24**:18–**A25**:4. It was this water – regularly *thousands of times* more acidic than normal, and laced with large quantities of toxic heavy metals – that was continuously released onto respondents' land. *See, e.g.*, **A17**:8–27, **A17**:30–**A18**:34, **A25**:2–**A26**:14, **A26**:29–**A27**:35; PX-12 at 2.

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reflected "disdain" for this Court's decision in *Honda Motor Co. v. Oberg*, 114 S. Ct. 2331 (1994), is doubly mistaken. First, the district court's searching review, and extensive on-the-record explanation of its decision, fully satisfied due process; there is no right to appellate review. *E.g.*, *Abney v. United States*, 431 U.S. 651, 656 (1977). Second, the Eleventh Circuit did in fact review the district court's decision. *See TXO Production Corp. v. Alliance Resources Corp.*, 113 S. Ct. 2711, 2724 (1993) (plurality opinion) (no right to written opinion).

***2. Combustion severely understates the extent of the environmental devastation.*** Combustion claims that its pollution caused only trivial harm. Again, Combustion does not fairly characterize the evidence. Prior to Combustion's pollution, the streams were healthy and were put to a variety of regular uses by respondents.[3] Shortly after mining began, however, the acid mine waste draining from Combustion's site began to wreak environmental havoc. *See, e.g.*, **A38**:20-21, 30-36.[4] Respondents testified that their streams started to carry dirty "reddish brown" sludge that was "full of silt" and so acidic that a person's hand with a cut on it would "actually burn" if put in the water. **A37**:14-15, **A39**:37-40, **A41**:38–**A42**:2. The leaves and branches that fell into the streams were covered with a trail of "orangish red" or "orange yellow crustation[s]" as well as a "soft looking fiber" that looks "like cotton." **A26**:17-26, **A37**:9-13, **A39**:37-38. Rafts of "brownish yellow foam," "two inches high all

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[3] Respondents testified that the streams were "used for a lot of different reasons." **A49**:16. The Long stream, for example, was used for "water," "recreation, swimming," "catch[ing] fish," and just "playing around." **A33**:35-36, **A48**:7-8, **A49**:15-24. Respondents along the McGill stream testified that they used to drink from their stream, which had water "[a]s good as you could find anywhere." **A47**:24-32. The stream was also "full of fish, frogs," **A43**:38-40, and made one adjoining picnic spot "as beautiful a piece of property as there was in the county other than up on the mountain." **A47**:19-21, **A48**:1-4. Similarly, before Combustion started polluting the Goldman stream, it was "clear as a bell" and respondents "used to drink from it all the time." **A43**:15-20, *see also* **A41**:7-12. There also "were a lot of fish in there." **A42**:6-20. A respondent on the Maloof stream testified that as a child he "used to drink out of [the stream] all the time," **A39**:29-30, and that cattle watered on the stream. **A37**:20-29.

[4] Although Georgia has a four-year statute of limitations in trespass actions, and this lawsuit was filed in 1991, Combustion's misconduct prior to 1987 was relevant in establishing its willfulness after 1987. Combustion knew that its failure to reclaim while mining operations were ongoing – and, in fact, its failure to conduct any meaningful reclamation at all – would create a severe acid mine drainage problem. *See, e.g.*, *TXO*, 113 S. Ct. at 2716 n.10, 2717-18, 2720, 2722 (plurality opinion) (using evidence of fraud and other misconduct not part of plaintiffs' slander of title claim); *Big Apple BMW, Inc. v. BMW of North America, Inc.*, 974 F.2d 1358, 1361 (3d Cir. 1992), *cert. denied*, 113 S. Ct. 1262 (1993) (events "fal[ling] outside the statute of limitations [could be] included for the purpose of demonstrating a pattern of conduct"); *United States v. Shelton*, 848 F.2d 1485,1496 (10th Cir. 1988) (time-barred evidence admissible under Fed. R. Evid. 404(b)).

the way to two or three feet high," began floating down the streams, leaving in their wake "blankets of suds" and covering the logs and rocks. **A44**:11-13, **A47**:7-8, **A50**:5-7; *see also* **A20**:7-19 ("big build-ups of foam . . . like meringue on top of the water"). Respondents' streams developed an overpoweringly "foul smell," like a "rotten egg" or "a battery when it's undercharged," that would linger for several days after a rainfall. **A37**:17-19, 31-33, **A40**:2-3, **A47:2-3**. For all practical purposes, the streams that flow from Combustion's property over respondents' property are now "dead." **A50**:14-16. Respondents can no longer drink from the formerly pure streams, and cannot even swim in them. *See, e.g.*, **A43**:2-23, **A47**:24-32, **A49**:27. Nor can they fish: "no fish," or indeed "anything," lives in the water. **A47**:3-4, **A49**:30-32. Combustion "killed everything." **A43**:40. Expert testimony confirmed the devastating impact of Combustion's acid mine drainage on respondents' streams.[5]

3. ***Combustion had ample prior notice of the pollution.*** Combustion suggests that respondents' lawsuit, filed in 1991, came out of the blue: that previously Combustion and respondents had "lived in peaceful coexistence," with respondents "rarely complain-[ing]" about the mining operation, and with Combustion "respond[ing]

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[5] A team of hydrology experts examined respondents' streams between January and September 1992 and independently concluded that there was a "constant" "problem[] with acid mine drainage" flowing from the minesite (not a problem resulting only occasionally from rainfall). **A17**:30–**A18**:2; *see also* **A17**:8-15. These experts concluded that the Maloof, McGill, and Long streams "ha[d] been severely impacted" by acid mine drainage flowing from Combustion's property, **A18**:37–**A19**:38, **A20**:27–**A21**:5, **A21**:13-24, **A22**:4-10, 13-41, and were no longer "suitable for normal usage or recreational or farm purposes." **A21**:8-19; *see also* **A21**:23-30, **A22**:13-30. The scientists concluded that the Goldman stream (the only stream that Combustion even attempted to treat) was also polluted: the stream's content of dissolved solids was abnormally high, its sulfate levels were over 40 times higher than the reference stream, it carried a "tremendous amount of sediment," and it was exposed to "periodic releases of very low pH water from [the mine]site." **A19**:24-38, **A23**:2-21, PX-10. These conclusions were corroborated by the findings of a professor of stream ecology at the University of Georgia, who examined the streams in April 1992 and concluded that the streams were virtually devoid of life, other than bugs like "beetles that are known to be tolerant to acidic conditions as well as some high chemical conditions." **A69**:5-9; *see also* **A68**:19–**A69**:2. Even the data collected by Combustion's own experts revealed heavy levels of pollutants flowing into respondents' streams. See note 9, *infra*.

decisively" to any complaints that were made. Pet. 3-4 & n.3. Yet again, Combustion ignores substantial evidence to the contrary. As early as the 1970s, the father of two respondents (and their predecessor in title), repeatedly called Combustion's site manager to complain about untreated mine waste draining from one of the tailings ponds into the Maloof stream. **A36**:39–**A37**:5, **A38**:24-36, **A39**:15-18. In 1982, an investigator from the Georgia Department of Natural Resources ("DNR") relayed complaints to the minesite manager about a large berm (earthen dam) underneath the west tailings pond that had leaked "[f]or years and years" and flowed across Hepzibah Church Road into the Long stream. **A44**:16-21. Another neighbor wrote to the county health department in 1986, complaining of fish dying in his stream, **A45**:5-8; his complaint was referred to the minesite manager. **A45**:11-12. A county health department official talked to Combustion's manager "numerous times" about problems with the streams, **A45**:15, and conveyed his concerns to Combustion's attorneys as well. **A45**:16-20. Combustion would likely have received even more complaints but for the fact that it has no office on Graves Mountain, receives no mail there, and stations no representative there to receive complaints. **A64**:37–**A65**:21. Further, Combustion made no effort to notify its neighboring landowners of the levels of pollutants being released into their streams, not even when there were sudden overflows of millions of gallons of polluted water. PX-10, **A41**:19-31, **A42**:26-28, **A43**:2-12, **A72**:39–**A73**:21.

The record shows that Combustion responded to these complaints by doing only "enough to pacify" the neighbors so that they would "stay home and shut up." **A39**:23-26. Combustion never tested the water flowing from the seeps, **A65**:29–**A66**:15; *see also* p. 10 & note 8, *infra,* and never attempted to provide a lasting cure for the toxic drainage seeping into respondents' streams. *E.g.*, **A44**:24-25, **A45**:23-24. A county environmental health specialist testified that he complained to Combustion about a leaky berm in 1977, but "[t]he leak is still there because they never did anything . . . to it" except try to plug it with dirt and grass. **A44**:32–**A45**:2, **A45**:23-24; *see also* **A57**:1-16. Acid mine drainage continued to flow into each of respondents' streams at the time of trial in 1993, **A18**:37–**A19**:38, **A20**:27–**A21**:5, **A22**:13-41, **A23**:24-30, **A51**:14–**A52**:5, as even Combustion admitted. **A30**:6–**A31**:7, **A73**:24-39.

***4. Combustion deliberately refused to adopt adequate cleanup measures.*** Combustion lauds the fact that through the time of trial in 1993, it had spent more than a million dollars on Graves Mountain after the end of mining. But this money was spent on dismantling Combustion's plant and on reclamation efforts on its own land. Combustion made no effort to use readily available, effective measures to remediate the water being released onto respondents' property, despite full knowledge that it was polluting respondents' streams, and despite the insistence of its own experts that remediation efforts were essential to protect respondents' streams. As the district court observed, the evidence showed that Combustion pursued this approach as a "cheap way of buying time" and that the money spent was "peanuts" compared to what was essential to protect respondents' property from pollution caused by the minesite. **A9**:26-33. Further, most of the money that Combustion did spend was spent only *after* respondents filed this lawsuit in 1991. *See* Pet. 9.

For two full years after mining stopped in 1986, Combustion made no cleanup efforts of any kind, despite its obligation under a reclamation plan filed with state regulatory officials in 1985 to immediately reclaim the minesite, *see* Court's Exhibit 1, and despite repeated notice by regulators that large quantities of acid mine drainage were flowing from the site and into respondents' streams. The 1985 plan was designed to "protect[] adjacent watersheds" (cover page), and it specifically promised state regulators that no water "will be allowed to leave or flow from affected lands without proper treatment" meeting state and federal effluent standards (e.g., pH no lower than 6.0). *Id.* at 9. In particular, "to protect contiguous natural resources from suspended or dissolved solids," *id.*, the plan required Combustion to employ *remediation* techniques to immediately treat pollutants flowing off its land – not just long-term *reclamation* techniques designed eventually to return its land to the natural state. The 1985 plan guaranteed that "timely and sufficient" methods would be employed "to protect contiguous natural resources from suspended or dissolved solids." *Id.* Finally, the plan required that the clean-up be completed no later than "18 months after the cessation of mining," *id.* at 5 – that is, no later than spring 1988. An 18-month time limit is standard industry practice. *See* **A53**:38-40.

By the fall of 1987 – twelve months after mining stopped, and only six months before the required cleanup completion date – Combustion had not even *begun* to comply with any of its duties

under the 1985 plan. State authorities informed Combustion of the acid mine drainage problem in an October 1987 meeting, which a Combustion official summarized in a memo as follows:

> The single most important concern of the DNR is present and potential acid run-off. Mr. Tinley [a DNR official] produced a map on which had been noted several pH readings from streamlets in the area with origins both from the site works and natural springs. Although the natural springs from the area exhibited relatively low pH's of around 5, the water from the site works showed pH's of around 2.25 to 3 [hundreds of times more acidic than the natural streams].

PX-23 at 3. DNR ultimately conducted a total of 70 pH tests; almost half demonstrated pH levels 1000 times more acidic than normal. *See* **A32**:20-34; PX-7, PX-9 (collecting raw test data). Despite this notice, by early March 1988 – when Combustion was supposed to have finished cleaning up Graves Mountain – the sum total of its supposed response had been to take a total of 10 pH readings from unimpacted streams and certain ditches and ponds, and to contemplate "plans" for future action. PX-39, **A61**:39–**A62**:4, **A62**:11-13, DX-5.

During the next three years, Combustion received even further notice of the need to implement immediate remediation measures. In addition to DNR's 70 pH tests, on March 15, 1988, Broughton Caldwell, a DNR scientist, visited Graves Mountain to do even more extensive testing, confirmed that pH values were highly acidic, and discovered that "iron precipitate" coated the leaves in the stream at one site and that insect communities at each site were close to non-existent. He concluded that the lack of biological diversity or abundance was related "in large part to the low pH values" and resulting "strongly acidic" water. PX-7 (memorandum dated April 1, 1988). The day after Caldwell completed his study, DNR officials met with Combustion and reemphasized their concerns about "controlling . . . water discharge." PX-39. Combustion then agreed to begin some "preliminary work" "next week" and to submit a "reclamation program and schedule . . . to the DNR." *Id.*

Nine months later – more than two years after the cessation of mining – Combustion finally adopted a revised reclamation plan. But the minimal reclamation efforts adopted by Combustion pursuant to this revised plan did nothing to *remediate* the flow of toxic mine drainage into respondents' streams. Combustion's efforts were purely

long-term reclamation measures – a county environmental health specialist testified that the measures consisted of "smooth[ing] up the roads, plant[ing] some grass," **A25**:23-24; *see also* Pet. 5-6 – which would clear up the pollution in respondents' streams only indirectly and only after many years.[6] Respondents' principal expert, Dr. Claude Terry, also confirmed that Combustion's reclamation efforts were "trivial" (this expert testimony was unchallenged). **A59**:22-24.[7]

With regard to Combustion's failure to remediate the streams, Dr. Terry also observed that "as far as the water actually [exiting] the site that is going on to the plaintiffs' property I have not seen any extensive use of [remediation] techniques," **A74**:29-32; *see also* **A52**:10-14, **A54**:2-33, **A57**:23-34, despite the common knowledge within the mining community since the 1970s that such remediation techniques were necessary. **A59**:9-15. Terry also testified in considerable detail that the minesite was "treatable by a number of technologies," **A27**:36–**A28:3** (*see, e.g.*, **A50**:23–**A51**:11, **A52**:17–**A53**:35, **A57**:37–**A58**:37), and that even at the time of trial in 1993 Combustion had failed to use these available measures to "remediate [the] toxic discharge." **A57**:38-39. *See, e.g.*, **A54**:2-3, **A57**:17-34. By failing to use these measures between 1987 and 1993, Combustion retained at least $6 million in additional profits. **A74**:5-11.

Combustion itself had no illusions that its measures would have any immediate effect on the pollution. John Brett, a top Combustion executive personally in charge of the site, testified that his hope was that these reclamation measures would "eventually" stop the flow of pollution. **A62**:16-18; *see also* **A62**:21-26, **A72**:2-5, 14-19, 32-36.

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[6] Revegetation is necessarily a long-term repair because the vegetative cover has little, if any, effect on the pollution problem until it reaches the thickness and maturity required to bind down loose topsoil and shield the underlying rock from oxygen. **A21**:33-40, **A25**:28-33, **A68**:5-12.

[7] As Dr. Terry testified without contradiction, to effectively reclaim the area Combustion would have had to: (1) "strip and reclaim each area as you go," which "typical" mine reclamation plans entail, **A74**:14-18; *see also* **A62**:7-8; (2) add lime to the soil in the reclaimed area so that "when you do have flooding in an area [it] will increase the pH of any run off," **A74**:19-21; (3) "use . . . clay caps" "to keep oxygen from coming into contact with potentially acidic material such as pyrite," **A74**:22-25; and (4) build wetlands to "disrupt the flow" of water from the site, raise the water's pH and filter out dissolved heavy metals. **A54**:22-27.

Indeed, Combustion attempted to avoid its obligation (imposed by the 1985 reclamation plan) to bury the tailings and pyrite ponds under "four feet of topsoil" to prevent oxidization of the exposed pyrite. It did so by starting the "West Pond 1" project, a futuristic greenhouse experiment in which Combustion scientists attempted to grow a kind of "miracle grass" – ground cover that could somehow thrive on bare mine tailings (toxic pulverized rock) that contained "considerable acidity" and were "almost devoid of nutrients essential to plant growth." DX-15 at 1, 3. Not surprisingly, this experiment failed; at the time of trial, nothing was growing on these areas, which Combustion had simply left bare. *See* PX-3 (aerial photograph, reproduced as Appendix C, at A77).

Further, the testimony of Combustion's own employees demonstrates that Combustion made a deliberate decision not to use available remediation techniques after being advised of the need to remediate the polluted streams. The environmental consultant hired by Combustion to plan reclamation of the minesite, Jerry Williams, conceded "the importance of controlling the acid mine drainage from mine sites" and admitted that "if it travels off-site you have a problem." **A66**:32-34. Williams explicitly notified Combustion of this problem in a 1989 proposal in which he warned that water would eventually leach away "most of the acidity from the material [in the tailings ponds,] . . . [but] the acidity removed would probably contribute to problems downstream where the water will almost certainly require liming [a standard remediation measure] before meeting acceptable discharge standards." DX-15 at 3. Combustion, however, chose to hire Williams solely to "revegetate" its own minesite (with the experimental "miracle grass"); Williams was not asked to test or otherwise address the acid mine drainage going into respondents' nearby streams. **A66**:37–**A67**:27, **A67**:30-39. Combustion did not hire or assign anyone to handle that critical task. **A64**:37–**A65**:21, **A65**:24-26.[8]

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[8] After being notified in 1987 and 1988 by the DNR of the severe pollution flowing into respondents' streams, Combustion discontinued testing of the streams, neglecting even to monitor the level of acid mine drainage that it knew was flowing onto respondents' property. **A35**:17-30, **A35**:33–**A36**:5, **A36**:12-28. Paul Hall, the Combustion official in charge of Graves Mountain between 1986 and 1990, admitted that Combustion's efforts were not aimed at even addressing "whether or not there was

Faced with Combustion's failure for five years to make any effort to remediate the streams, and its pursuit of only trivial reclamation measures, in June, 1991 the DNR brought an enforcement action against Combustion, finding that the company had violated Georgia Water Quality Standards by discharging highly acidic water from the minesite. **A63**:2-27. Two months later, the instant lawsuit was filed. Faced with these developments, Combustion entered into a consent order with state authorities in September 1991, in which it agreed at least to *begin* cleaning up the minesite. **A63**:30–**A64**:34.

To protect Combustion from being prejudiced by having its regulatory violations documented to the jury, on Combustion's request the district court entered an *in limine* order barring any mention of the consent order before the jury. Docket No. 64, at 6. However, when Combustion then sought to exploit this ruling by having its top executive John Brett testify to supposedly voluntary post-1991 cleanup efforts, cloaking itself with what the court termed "a Snow White-like innocence," **A4**:21-23, the district judge concluded that Brett's testimony had opened the door for cross-examination about the "history . . . of the reclamation effort leading up to the consent order." **A62**:37-39.

Brett was then forced to admit that Combustion's plan was put into effect in 1991 only *after* Georgia cited it for "a violation of law" involving acid mine drainage with a pH of 2.9 – more than 1000 times more acidic than normal water – "coming from the pyrite pond and leaving the mine site," and discharges from the holding pond with a pH of 3.2. **A63**:2-27; *see also* **A18**:5-11. Brett conceded that these discharges violated Combustion's permit. **A63**:11-27. Further, Brett was forced to acknowledge that the reclamation plan that he had

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acid mine drainage going on to the property of adjacent landowners." **A36**:29-32. This policy continued after Hall was replaced in 1990 by top executive John Brett. **A31**:10–**A32**:34, **A34**:11-23, **A65**:24-26. Combustion adopted none of the available measures to stop the polluted water from flowing onto respondents' land. See p. 9, *supra*. Combustion's failure promptly to reclaim its land further aggravated the problem created by its failure to remediate. *See* **A25**:19-35, **A25**:38–**A26**:14, **A28**:11-15. Finally, the evidence showed that the pollution problem has been a constant one, not limited to periods of "heavy rains" as claimed by Combustion (Pet. 3). *See* **A17**:30–**A18**:2; *see also* **A25**:7-16. Indeed, at trial Combustion admitted that acid mine drainage continued to seep from the tailings and pyrite ponds onto respondents' property. See p. 6, *supra*.

touted to the jury to suggest Combustion's good faith had, in fact, been compelled under the consent order that resolved the enforcement action, which mandated that Combustion "submit a written commitment and plan with a schedule for the reclamation of the land for written approval." **A64**:3-17.

Brett asserted that the sole reason for Combustion's years of delay was that it "had never had any complaints," and consequently never knew that its downstream neighbors were being affected by the acid mine drainage flowing from the site. **A29**:7-10, **A62**:29-30, **A73**:1-4. Brett admitted that he knew of no "particular technical reason why" measures taken under the 1991 consent order could not have been voluntarily implemented "five or six years" earlier than the 1993 trial, **A72**:8-11, and he acknowledged that Combustion had not been hindered by any budgetary constraints that would have made remediation measures difficult to implement. **A72**:22-29. Instead, he testified, the sole reason that remediation measures were not implemented prior to respondents' suit in August 1991 was that "we never had reason to believe there was a problem there." **A62**:29-30. But the jury was presented with ample evidence indicating that Brett was lying, and that Combustion – even though it deliberately failed to monitor the acid mine drainage flowing onto respondents' property – did in fact know that it was polluting respondents' streams and purposely delayed cleanup efforts to save money.[9]

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[9] Among other things, Brett was forced to concede that Combustion knew of the acid mine drainage problem since at least May 1988, because respondents' counsel confronted him with the fact that a state-court lawsuit was filed then by two of respondents' neighbors (*Combustion Engineering, Inc. v. Spires*, 209 Ga. App. 240, 241, 433 S.E.2d 60, 61 (1993), *cert. denied*, 1993 Ga. LEXIS 969 (Oct. 12, 1993)), and that Brett had actually sat through the *Spires* trial (in which the jury returned a $100,000 punitive damages verdict against Combustion). **A29**:22-24; *see also* **A29**:27–**A30**:3. Indeed, even the district court remarked that it was "surprised," **A29**:27-30, to hear Brett claim on the witness stand that "this is the first time our activities have ever been complained of in a legal proceeding by our neighbors," **A29**:13-14, as this statement was obviously untrue.

Respondents also introduced the work product of environmental consultants hired by Combustion in 1989 during *Spires*, which respondents were permitted to obtain as a means of proving that Combustion was "aware of the condition at [Graves Mountain] at an earlier time, but did nothing to abate that condition." *See* Docket No. 21, at 4. The data collected by these consultants are startling. The first study, conducted by Dames & Moore in 1989, compared three of the streams running across

## REASONS FOR DENYING THE WRIT

### I. THE $15 MILLION AWARD IS NOT EXCESSIVE

The petition focuses its request for review almost entirely on the claim that it raises "a virtually identical issue" (Pet. 14) to that presented in *BMW of North America, Inc. v. Gore*, No. 94-896. But that claim is incorrect and rests on a tendentious and distorted description of the trial record and proceedings below. There is no reason to hold this case for *BMW*.

#### A. The Award Is Eminently Reasonable Under Each of the Familiar Factors

Combustion's argument obscures the actual basis for the damage award in this case. In fact, the award easily meets constitutional muster under each of the familiar factors.

##### 1. *The reprehensibility of Combustion's misconduct*

Combustion denies that it acted with any deliberate intent to cause harm. Yet the courts below *necessarily* found that Combustion acted with specific intent to injure. Indeed, the evidence was overwhelming that Combustion knowingly and intentionally trespassed on respondents' property, acting with bad faith in the hopes of saving millions of dollars in profits. For years, Combustion knew that it was polluting respondents' streams without their permission and without any permit from the State of Georgia. See pp. 3-8, *supra*. It failed to reclaim its site while mining was ongoing, contrary to typical industry practice. See p. 9 & note 7, *supra*. Combustion failed to make any efforts at reclamation or remediation for at least two years after mining ended in 1986. See p. 7, *supra*. The money spent on the

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respondents' property (McGill, Long, and Goldman streams) to a reference stream unimpacted by mining activity. Respondents' three streams had pH levels as low as 2.6, thousands of times more acidic than the water sampled at the unpolluted reference stream; specific conductivity levels as high as 2210, approximately 18 times higher than at the reference stream; and dissolved iron levels up to 199 milligrams per liter, over 200 times above those of the reference stream. PX-12 at 2. The second study commissioned by Combustion in 1989, conducted by Drs. Arnold & Miller (two agronomy professors at the University of Georgia), focused on the Long stream and produced similar results. PX-13; A32:37-39.

reclamation measures started belatedly in 1988 was simply "peanuts" – a "cheap way of buying time" – especially because these measures benefitted almost exclusively Combustion's own land and had only a "trivial" effect on the pollution flowing into respondents' streams. See p. 7, *supra*. Combustion did not move to correct the problem even after a lawsuit similar to this one was filed in May, 1988. Even the inadequate measures begun in 1991 to partially remediate one of the four polluted streams were implemented only *after* this lawsuit was filed and a state regulatory enforcement action had been commenced. See pp. 11-12, *supra*. Combustion's strategy was to delay, even in the face of irrefutable evidence of pollution, and, once caught, to do as little as possible to address the harm – all in the hope that it could save millions of dollars in reclamation and remediation costs.

Thus, the severity of the offense was great. It involved "bad faith,"[10] and a "pattern of fraud, trickery, and deceit" concerning devastating pollution that continued through trial. *TXO*, 113 S. Ct. at 2722 (plurality opinion). It involved "intentional" and "malicious" misconduct, with no contrition whatsoever. *Pacific Mutual Life Ins. Co. v. Haslip*, 499 U.S. 1, 23 (1991). Combustion destroyed natural resources, some of which had been in respondents' families for generations. *E.g.*, **A33**:26-27, **A40**:38-29. Combustion's pollution rendered the streams unsuitable for "normal usage or recreational or farm purposes," **A21**:8-10, and it interfered with respondents' ability to raise cattle, **A37**:20–**A38**:13, **A40**:10-11, **A43**:30-35, **A45**:31-35, **A47**:11-12; rent their land, **A46**:36-38; grow timber, **A40**:20-21, **A47**:35-37, **A48**:19-22; fish in the streams, **A40**:21-22, 29-31, **A48**:11-12; drink from them, **A43**:17-23; swim in them, **A42**:23; and pass the land down to respondents' children and grandchildren in a pristine state. **A33**:39, **A40**:38-39, **A42**:31-39, **A44**:2-4.

Trespass to land is one of the oldest actions in which punitive damages have traditionally been awarded.[11] The jury is best suited to

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[10] Notably, Combustion never appealed the jury's explicit finding (in awarding out-of-pocket expenses and attorneys' fees) that Combustion acted in "bad faith" in polluting respondents' streams. *See* **A34**:29–**A35**:10, **A69**:38-39.

[11] *See, e.g.*, G. Field, *Law of Damages* 67, 71, 88 (1876) (citing cases); *Merest v. Harvey*, 128 Eng. Rep. 761 (C.P. 1814) (damages for "treading [plaintiff's] grass and hunting for game"); *Sears v. Lyon*, 171 Eng. Rep. 658 (K.B. 1818) (punitive damages for throwing poisoned barley on plaintiff's land, although no actual damages proven).

make an essentially qualitative judgment regarding "the enormity of the offence," *Day v. Woodworth*, 54 U.S. (13 How.) 363, 371 (1851), and the jury's "representative character permits its verdicts to express the sense of the community." *Haslip*, 499 U.S. at 40 (Kennedy, J., concurring in judgment); *see also Missouri Pacific R. Co. v. Humes*, 115 U.S. 512, 521 (1885); *Barry v. Edmunds*, 116 U.S. 550, 565 (1886). Such an approach is especially warranted in environmental cases, because "it is unreasonable to view market price as the exclusive factor [in determining the value of a resource], or even the predominant one. From the bald eagle to the blue whale and snail darter, natural resources have values that are not fully captured by the market system." *Ohio v. United States Dept. of Interior*, 880 F.2d 432, 462-63 (D.C. Cir. 1989).

In this case, the district court noted the jury's moderate tone and pro-defense orientation; even so, the court reduced the award by two-thirds. The district court, from its firsthand vantage point, was in the best position to ensure that the jury's message was preserved and that the punishment fit the offense without being excessive. Indeed, a number of considerations demonstrate that there is no basis for upsetting the balance struck by the district court and affirmed by the Eleventh Circuit:

First, the instant case was tried under a Georgia tort-reform statute that caps punitive damages at $250,000 except where a plaintiff can prove – by "clear and convincing evidence" – specific intent to cause harm. O.C.G.A. § 51-12-5.1(f). Accordingly, the Georgia legislature has made a considered judgment *not* to impose a cap on punitive damages in cases like this one. It has expressly singled out such cases as candidates for especially stringent punishment, to be determined by a jury.

Second, 23 separate plaintiffs owning 16 different plots of land brought this action. Pet. ii. Even if each plaintiff had received no more than the $250,000 allowed by the legislature in cases *not* involving specific intent to harm, the total punitive award in this case would have been $5.75 million.

Third, under the Georgia Water Control Act, civil penalties of up to $100,000 per violation per day may be assessed for repeated violations. O.C.G.A. § 12-5-52(a). Had the maximum penalty been imposed on Combustion for its years of noncompliance, the result would have far exceeded even the $45 million awarded by the jury.

4/25/94 Tr. at 83:4-8 (arguing that Combustion would have faced $400 million fine). In addition, the Act carries criminal penalties; indeed, knowing violations are punishable as felonies. O.C.G.A. § 12-5-53(a), (c).

Fourth, the award here is comparable to other environmental fines or settlements.[12]

For all these reasons, the award is eminently reasonable in light of Combustion's reprehensible conduct.

***2. Combustion's actual $6 million gain***

The award is also reasonable in light of Combustion's wrongful gain. It was undisputed that, since 1987, Combustion retained at least $6 million in illicit profits as a result of its intentional trespass.[13] The $15 million punitive award is amply justified in light of this large expected and in fact *actual* gain. Indeed, the first $6 million of the $15 million damage award simply extracted Combustion's wrongful profits. The remaining $9 million represents only 1.5 times Combustion's actual gain from its intentional tort. Hence, the award is this case is comparable to a $150 fine imposed on a thief who steals a $60

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[12] *See* Settlements, Nat. L.J., Feb. 5, 1996, at C-15 (reporting $65 million settlement in environmental class action for accidental chemical release that caused nausea, eye irritation, rashes, and other symptoms); *$129 Million Settlement Reached in Love Canal Case*, Legal Intelligencer, Dec. 22, 1995, at 5; *Companies Agree to Pay $40 Million to Clean Up Delaware Superfund Site*, BNA Nat'l Env't Daily, Apr. 25, 1995; *Smelting Facility Agrees to $205 Million Penalty for Alleged Violations*, Mich. Envt'l Compliance Update 1, June 1995; *Localities, Waste Haulers to Pay $63 Million for Operating Industries Site*, BNA Chem. Reg. Daily, Jan. 3, 1995; *Acknowledging Mistakes, Con Ed Takes Steps to Mend Its Ways*, N.Y. Times, Dec. 11, 1994, at 49 ($14 million settlement); *Three Strikes and Out*, Engineering News Record, Mar. 28, 1994, at 22 (civil penalties of $40 million for fungicide spill in Sacramento River); *Landfill Cleanup Suit Settled*, Denver Post, May 8, 1993, at 1 (suit settled for "tens of millions of dollars"); *Kodak to Pay $8 Million for RCRA Violations*, Haz. Waste Bus., Oct. 19, 1994, at 3; *Pollution Case Cost Inland $54 Million*, Chi. Trib., Mar. 10, 1993, at B1; *Lumber Firm Fined Millions for Polluting*, Chi. Trib., May 25, 1993, at 8 ($11.1 million); *Exxon to Pay $25 Million More in Spill Deal*, USA Today, Oct. 1, 1991, at A-1 ($900 million in civil penalties and $125 million in criminal fines in *Valdez* settlement).

[13] A74:5-11. This figure does not include pre-1987 profits, such as the gain to Combustion from failing to reclaim while mining operations were ongoing, contrary to the typical industry practice. See pp. 7, 9 & note 7, *supra*.

radio. There can be no doubt that such an award passes constitutional muster. In *TXO*, for example, the plurality noted, "in addition to TXO's vast wealth, the tremendous financial gains that TXO hoped to achieve," and indicated that an award of even 10 times the size of the gain would be reasonable. 113 S. Ct. 2722.[14]

Combustion's sole response is to argue that it would be "economically irrational" to force Combustion to spend $6 million to abate its pollution. Pet. 18. This argument should be addressed to the Georgia legislature, not to this Court. Georgia law does not permit Combustion to assume a power of *private* eminent domain and to appropriate the property of others simply by paying compensatory damages. Combustion does not dispute before this Court, just as it did not dispute below, *see* Appellees' Ct. App. Br. 3, 44 (Jan. 6, 1995), that respondents are lower riparian owners who, under Georgia law, have the absolute right "to have water flow upon [their] land in its natural state free from adulteration," *Kingsley Mill Corp. v. Edmonds*, 67 S.E.2d 111, 112 (Ga. 1951), regardless of whether mining was more profitable than other uses of the land.[15] The decision in this case reflects nothing more than the traditional principle that "[t]he value of the property . . . is not the only ground for damages. [O]therwise, a person so disposed might forcibly dispossess another of any article of property at his pleasure, and compel the owner, however unwilling, to accept of the value in its stead." *Edwards v. Beach*, 3 Day 447, 450 (Conn. 1809).

Beyond its thinly veiled *Lochner*-ism, Combustion's argument is economically incoherent, because it confuses *property* rules with *liability* rules. *See* Pet. 18-19 n.12 (citing Learned Hand's formula for

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[14] *See also Haslip*, 499 U.S. at 22 (approving factor of "the profitability to the defendant of the wrongful conduct and the desirability of removing that profit and of having the defendant also sustain a loss"); *Waters-Pierce Oil Co. v. Texas*, 212 U.S. 86, 111 (1909) ($1.6 million penalty upheld because illegal business was "very profitable" and defendant had over $40 million in assets).

[15] *See, e.g., Satterfield v. Rowan*, 9 S.E. 677, 679 (Ga. 1889) ("[plaintiff] was entitled to have the water flow upon his land from [defendant mining company's] land in its natural state . . . whether the stream of water was more useful for the purpose of mining than it was for domestic purposes"); *see also* O.C.G.A. § 51-9-7 ("[t]he diverting of the stream in whole or in part from its natural and usual flow, or the obstructing thereof . . ., or the polluting thereof so as to lessen its value to the owner of such land shall constitute a trespass upon the property").

ascertaining negligence). Some rights and assets (such as the entitlement to be free from breaches of contract or negligently caused accidents) are protected only by liability rules: a defendant who violates the entitlement need pay only ordinary compensatory damages. But the distinguishing characteristic of a "property right" – such as the right under Georgia law to unpolluted water – is that "someone who wishes to remove the entitlement from its holder must buy it from him in a voluntary transaction." Calabresi & Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1092 (1972). A system of voluntary contractual exchange encourages mutual consensual decisions made on the basis of the parties' subjective valuations, producing more efficient outcomes for society overall than would a system operating by command. Particularly in cases involving "thin-market" assets like real property (where assets are not homogeneous and for which there is no standard price quotation), punitive damages must be assessed in order "to channel resource allocation through the market as much as possible" and to ensure that a defendant "do[es] not consider conversion an acceptable substitute for purchase." Richard Posner, ECONOMIC ANALYSIS OF LAW 209 (4th ed. 1992).

In this case, Combustion's intentional trespass on respondents' property was a form of "contractual bypass," because Combustion could have bargained with respondents to acquire the right to pollute their property or even to acquire the property itself. The purchase price would have been determined by the value of the property to respondents (which was not in evidence before the jury)[16] and the value of the property to Combustion (at least $6 million). Permitting Combustion to escape by paying only compensatory damages would permit it to retain all the gains from exchange that would have been

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[16] Combustion asserts that the estimated aggregate fair market value of respondents' land was $1.347 million. Pet. 15. But this figure was never introduced into evidence at trial. Indeed, on Combustion's own motion all evidence of the land's value was barred as irrelevant to the case, A48:28–A48-a:33, after the district court obtained Combustion's explicit waiver of any possible argument that might depend on the value of respondents' land. A48-a:18-20, 30-33. Apart from Combustion's waiver, of course, a federal court "cannot, consistent with the Seventh Amendment, evaluate a jury's verdict based on evidence that the jury was not permitted to consider at trial . . . ." *Mattison v. Dallas Carrier Corp.*, 947 F.2d 95, 108 (4th Cir. 1991); *see also Browning-Ferris Indus. v. Kelco Disposal, Inc.*, 492 U.S. 257, 280 n.26 (1989).

divided between the parties if they had freely bargained over the sale of the property.

In such cases of deliberate interference with property rights, punitive damages must be imposed in an amount sufficient to remove all the actual or anticipated gain by a defendant, and then some, in order to leave a defendant "worse off than negotiation would have." Haddock, McChesney & Spiegel, *An Ordinary Economic Rationale for Extraordinary Legal Sanctions*, 78 Calif. L. Rev. 1, 18-19 (1990).[17] Punitive damages must thus be set according to what Combustion gained by violating respondents' property rights: the ability to avoid either $6 million in pollution abatement costs, or the need to spend up to $6 million (or conceivably even more, depending on the value of the property to respondents) to purchase respondents' property rights. A multiple of the expected gain must be imposed because of the probability that a defendant's conduct might not be challenged or that the defendant might otherwise escape punishment. *E.g.*, *St. Louis, Iron Mountain & So. Ry. v. Williams*, 251 U.S. 63, 67 (1919) (penalty of $75 for overcharge of 66 cents not excessive because defendant had high probability of escaping punishment).[18]

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[17] *See also* Toy, Note, *Statutory Punitive Damage Caps and the Profit Motive: An Economic Perspective*, 40 EMORY L.J. 303, 307-08 (1991) ("Because the contractual bypass is a phenomenon that society wants to *eradicate*, it will not be enough to impose compensatory damages which merely make [the] plaintiff whole *ex post*. Punitive damages also must be imposed in an amount calculated to extract the profit [the defendant] expected to gain from his taking.").

[18] There should be no concern about "overdeterring" the kind of intentional trespass engaged in by Combustion. Even if social welfare would be increased if the property right in question (i.e., the right to control the level of pollution in the streams on Graves Mountain) were in the hands of Combustion rather than respondents, intentional violation of the right by Combustion has no social value so long as the property right can be transferred through legitimate avenues of market exchange. *See* Ronald H. Coase, *The Problem of Social Cost*, 3 J. LAW & ECON. 1 (1960). The optimal number of market-bypassing intentional torts is zero. That is why a person is not permitted to retain a misappropriated asset even if he can prove that the asset is more valuable to him than to its rightful owner and why a thief is not charged simply with paying the fair market value of a stolen item. *See* Calabresi & Malamed, 85 HARV. L. REV. at 1126 ("The thief not only harms the victim, he undermines the rules and distinctions of significance beyond the instant case. Thus even if in a given case we can be sure that the value of the item stolen was no more than X dollars, and even if the thief has been caught and is prepared to compensate, we would not be

**3. *Combustion's wealth***

The award of $15 million is also eminently reasonable when viewed in the context of Combustion's 1990 purchase price of $1.6 billion. The district court explained that this was "one of the most apposite cases" for considering the defendant's financial position, since an award of, say, $1 million would be a "mere inconvenience." **A11**:36–**A12**:1. This Court has repeatedly affirmed that the reasonableness of an award must be judged with reference to a defendant's wealth.[19] The award here is less than 1% of Combustion's value – well below the ratio that other courts have found acceptable.[20]

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content simply to charge the thief X dollars."); Richard Posner, *An Economic Theory of the Criminal Law*, 85 COLUM. L. REV. 1193, 1195 (1985) ("Market bypassing in such situations is inefficient – in the sense in which economists equate efficiency with wealth maximization – no matter how much utility it may confer in the offender."). *See also* Haddock, McChesney, & Spiegel, *supra*, at 13 (attempts at contractual bypass "have *no* social value at any level: their optimal level is zero. To eradicate such activities, efficient law would . . . reduce to zero the expected gain available to the defendant from the injurious activity, leaving no incentive for him to attempt the activity in the first place"); McChesney, *Deception, Trademark Infringement, and the Lanham Act: A Property-Rights Reconciliation*, 78 VA. L. REV. 49, 54 (1992) (social control of intentional theft "is not a problem of optimization at the margin. Rather, the law should seek the eradication of the valueless activity altogether.").

[19] *See TXO*, 113 S. Ct. at 2722 n.28 (plurality opinion); *Haslip*, 499 U.S. at 21-22; *Browning-Ferris*, 492 U.S. at 300 (O'Connor, J., concurring in part and dissenting in part); *Washington Gas Co. v. Lansden*, 172 U.S. 534, 551 (1899); *see also* Restatement (Second) of Torts § 908(2) & comment e (1977); *Punitive Damages: Relationship to Defendant's Wealth*, 87 A.L.R.4th 141, 151 (1992) (the "vast majority of courts" permit wealth to be considered).

[20] *See, e.g., Cash v. Beltmann North America Co.*, 900 F.2d 109, 111 n.3 (7th Cir. 1990) (citing examples of 40% and 23.3% of net worth in punitives upheld); *see also Dunn v. HOVIC*, 1 F.3d 1371, 1383 (3d Cir.) (in banc), *cert. denied*, 114 S. Ct. 650 (1993) ("a typical ratio for a punitive damages award to a defendant's net worth may be around one per cent").

### 4. *Combustion's arbitrary and meaningless computed "ratios"*

Combustion attacks the punitive award by computing a series of ratios between the punitive award and (1) the compensatory damages, (2) the supposed value of respondents' land, and (3) the award in a *prior* case involving Combustion. Each of these computations suffers from serious flaws:

- In calculating the compensatory damages suffered by respondents, Combustion arbitrarily excludes the $137,000 awarded to respondents for their out-of-pocket expenses, and the attorney's fee award of $90,000 based on the finding – which was not appealed – that Combustion had acted in "bad faith." **A34**:29–**A35**:10, **A69**:38-39.

- In assessing the value of respondents' land, Combustion relies on a figure that was not introduced at trial, because of Combustion's own motion to exclude it. See note 16, *supra*.

- In discussing the prior *Spires* litigation brought by respondents' neighbors against Combustion, see note 9, *supra*, Combustion inflates the relevant ratio[21] and fails to mention that the record in that proceeding was substantially weaker than that in the instant case.[22]

More fundamentally, all of Combustion's calculations are mathematical curiosities with absolutely no constitutional significance. The punitive award is reasonable by reference to the reprehensibility of Combustion's misconduct (as reflected in Georgia legislative determinations and in similar environmental penalties) and

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[21] Combustion derives a 150-to-1 ratio by simply comparing the total amount of the $15 million award in this case to 23 plaintiffs with the $100,000 award in *Spires* to two plaintiffs. But on a per-plaintiff basis, the average punitive award in the instant case ($652,174) is only 13 times greater than the figure in *Spires* ($50,000).

[22] *Spires* was filed in May 1988, prior to Combustion's woefully inadequate efforts under the December 1988 reclamation plan, prior to the DNR's June 1991 enforcement action against Combustion, and prior to the Dames & Moore and Arnold & Miller studies (begun as a result of the *Spires* suit), which confirmed to Combustion the extent of the pollution. See note 9, *supra*. Indeed, *Spires* provides strong support for the instant award, because it shows that – even after Combustion was unmistakably placed on notice of the environmental damage – it did nothing to correct the problem. *See Eichenseer v. Reserve Life Ins. Co.*, 934 F.2d 1377, 1384 (5th Cir. 1991) (subsequent punitive award of $500,000 was warranted because earlier $150,000 award "had little deterrent effect").

by reference to Combustion's actual gain and the amount needed to deter its wrongdoing. This Court has already held that there is no "ratio rule" prescribing a particular relationship between punitive damages and the harm suffered by a plaintiff.[23] Indeed, no reported decision of any tribunal has ever used Combustion's indicia to invalidate as "excessive" a punitive award found necessary to deter wrongdoing or to serve as appropriate retribution.[24]

Combustion further alleges that the award in this case is the largest verdict affirmed in Georgia. Combustion's claim is misleading[25] and constitutionally irrelevant. The punitive award upheld by this Court in *Browning-Ferris Indus. v. Kelco Disposal, Inc.*, 492 U.S. 257, 279 (1989), was the largest in Vermont history; the award in *TXO*, 113 S. Ct. at 2720, was 20 times larger than any prior

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[23] *See, e.g., TXO*, 113 S. Ct. at 2722 (plurality opinion) (neither 526:1 ratio between punitive and compensatory damages, nor 10:1 ratio between punitive damages and potential harm, would be constitutionally excessive) (plurality opinion); *Haslip*, 499 U.S. at 23 (4:1 ratio between punitive and compensatory damages, and 200:1 ratio between punitive damages and plaintiff's out-of-pocket expenses); *Browning-Ferris*, 492 U.S. at 262 (ratio of punitive to compensatory damages over 100:1); *St. Louis, I. Mt. & So. Ry. Co. v. Williams*, 251 U.S. 63, 66 (1919) (penalty 113 times plaintiff's actual loss permissible because it need not be "confined or proportioned to . . . loss for damages").

[24] "[T]he practice of awarding damages *far in excess of actual compensation* for quantifiable injuries was well recognized" in the eighteenth century. *Browning-Ferris*, 492 U.S. at 274 (emphasis added). *See, e.g., Wilkes v. Wood*, 98 Eng. Rep. 489, 498-99 (C.P. 1763) (£1,000 in punitive damages – equivalent to over £1 million today at a 3% discount rate – for plaintiff who suffered little injury); *Hewlett v. Cruchley*, 128 Eng. Rep. 696, 697 (K.B. 1813) (£2,000 verdict upheld even though the plaintiff's out-of-pocket costs were only £100); *Tullidge v. Wade*, 95 Eng. Rep. 909, 909 (C.P. 1769) (verdict of £50 upheld, even though plaintiff's loss was no more than twenty shillings); *New Orleans, J., & Great N.R. v. Hurst*, 36 Miss. 660, 667 (1859) (upholding award of $4,500 – roughly equivalent to $1 million today – where train dropped plaintiff three quarters of a mile beyond the station and forced him to walk back); T. Sedgwick, *Measure of Damages* 531 (4th ed. 1868) (reporting case of $3,000 punitive award for actual loss of $20).

[25] In *General Motors Corp. v. Moseley*, 447 S.E.2d 302, 312 (Ga. App. 1994), the Georgia Court of Appeals held that a $101 million punitive award in a product liability action – with a ratio to compensatory damages of 101,000,000:1 – was not excessive, even though the court reversed the verdict for other reasons.

West Virginia award.[26]

### B. This Case is Unrelated to *BMW v. Gore*

This case bears no resemblance to *BMW of North America, Inc. v. Gore*, No. 94-896, and there is no reason to hold the instant petition in abeyance pending this Court's decision in *BMW*.

As argued to this Court, *BMW* concerned a punitive award based on "hundreds of transactions that had no connection" to the forum State, Pet. Br. in *BMW* at 10, creating a constitutional concern with "extraterritorial punishment." *Id.* By contrast, the instant case involves a single (albeit ongoing) episode of pollution, entirely within Georgia. There is no issue of "extraterritorial punishment."

Nor is *BMW* similar to this case with respect to the excessiveness issue. BMW proposed "[a] variety of objective factors" that it said "may assist courts in locating a defendant's conduct on the reprehensibility spectrum" and thereby judging excessiveness. Pet. Br. in *BMW* at 37.[27] *Every one* of these factors illustrates the striking differences between *BMW* and this case.

**1.** In *BMW*, the petitioner argued that "there was no notice in any judicial decision, any statute, or any regulation anywhere in the United States that th[e] conduct would be considered fraud." Tr. Oral Arg. in *BMW* at 14:17-20. "Nor is there evidence that any state regulator ever

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[26] The "proportionality review" sought by Combustion is not required even in the death penalty context. *Pulley v. Harris*, 465 U.S. 37, 44-51 (1984). More to the point, the Court has expressed "skeptic[ism]" about the value of "intrajurisdictional and interjurisdictional comparisons" in punitive damage cases because "no two cases are truly identical." *TXO*, 113 S. Ct. at 2720 (plurality opinion). "[N]onuniformity cannot be equated with constitutional infirmity," *Haslip*, 499 U.S. at 41 (Kennedy, J., concurring in judgment), because the jury, not the court, is charged with "mak[ing] a *qualitative* assessment based on a host of facts and circumstances unique to the particular case before it." *TXO*, 113 S. Ct. at 2720 (plurality opinion) (emphasis added).

[27] Even BMW does not argue for a "ratio rule" between punitive and compensatory damages. *See* Pet. Br. in *BMW* at 31 ("We eschew any suggestion that there is some ratio of punitive damages to actual or potential harm that will be appropriate for every case."); Pet. Reply Br. in *BMW* at 12-13 ("We do not deny that there are some cases in which a high ratio may be warranted. . . . [W]hat is reasonable will vary from case to case.").

had objected to BMW's practice." Pet. Reply Br. in *BMW* at 18.[28] Here, the kind of intentional trespass committed by Combustion is tortious in every State of the Union and has triggered punitive damages for centuries. Combustion's pollution also violated state environmental statutes; Georgia authorities brought an enforcement action against Combustion in June 1991, finding that the company had violated Georgia Water Quality Standards by discharging highly acidic water from the minesite. **A63**:2-27.

**2.** BMW admitted that "conduct is objectively more reprehensible when the defendant is on notice that others consider it wrongful, either because the conduct is *malum in se* – that is, universally understood to be wrongful – or because there have been prior judgments imposing liability for that conduct." Pet. Br. in *BMW* at 41. The instant case involves intentional trespass – archetypal *malum in se* conduct. Moreover, Combustion took no corrective action after the May 1988 *Spires* suit and many other warnings unmistakably put it on notice of the pollution.

**3.** BMW maintained that its policy was "consistent with industry custom," Pet. Br. in *BMW* at 11; here, the evidence showed that Combustion's failure to reclaim *violated* industry custom.

**4.** BMW argued that it was "extremely important," Tr. Oral Arg. in *BMW* at 27, that the award was "1,000 times the civil penalty for analogous wrongdoing" prescribed by the Alabama legislature, Pet. Reply Br. in *BMW* at 16, and "completely out of line with civil penalties provided in other states for similar nondisclosure offenses." Pet. Br. in *BMW* at 43. By comparison, in this case the award is an order of magnitude *less* than the civil penalties prescribed by Georgia environmental statutes. The award here is also comparable to other environmental fines.

**5.** *BMW* raised the issue of multiple punishments for a single course of conduct. BMW argued that upholding the award in that case would "suggest that BMW could constitutionally be punished in the

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[28] BMW added that its conduct "barely registers" on "the scale of reprehensibility" because its disclosure policy "is consistent with the statutes of the overwhelming majority of states that have legislated on the subject." Pet. Br. in *BMW* at 11. "BMW had no notice when it sold Dr. Gore's vehicle that its use of a 3% disclosure threshold would be deemed to violate the common law of any state." *Id.*

amount of $2 billion" in aggregate damages, if all of the roughly 1,000 purchasers of refinished BMWs brought suit. Pet. Br. in *BMW* at 35. Here, there is no such danger. The instant litigation filed by 23 landowners around Graves Mountain is a consolidated action that avoids the risk of multiple punishment.

6. Finally, it is highly significant that, although BMW characterized "Alabama's punitive damages scheme as a 'lottery'" (Pet. Br. 9) and charged the Alabama state courts with a "dereliction of . . . duty" (Pet. for Cert. 11), the award in this case was the product of searching review by a federal district judge, who reduced the award by two-thirds. In addition, the case was tried under a carefully drawn Georgia tort-reform statute that closely regulates punitive damages. Indeed, in urging this Court's review, BMW singled out Georgia as a jurisdiction with particular restraint in imposing punitive awards.[29]

In sum, nothing that this Court might decide in the *BMW* case will have any bearing on this litigation. Even since the grant of certiorari in *BMW*, this Court has frequently denied review in punitive damages cases, rather than holding the petitions pending disposition of *BMW*.[30] This Court should follow the same course here.

## II. THE SECOND QUESTION IS NOT PRESENTED AND HAS NO MERIT

Combustion also contends that the jury award of $45 million in the original trial was the product of passion and prejudice and that it

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[29] "The average punitive exaction in Alabama is more than three times the national median and roughly eleven times the average punitive sanction imposed in neighboring Georgia." Cert. Pet. in *BMW* at 27.

[30] *See Cincinnati Ins. Co. v. Orangeburg Sausage Co.*, 116 S. Ct. 331 (1995) (cert. denied); *Van Klassens, Inc. v. Imagineering, Inc.*, 116 S. Ct. 277 (1995) (cert. denied); *Gust v. Levy*, 116 S. Ct. 171 (1995) (cert. denied); *Transportation Ins. Brokers, Inc. v. D.W. Ferguson & Associates*, 116 S. Ct. 86 (1995) (cert. denied); *Homestead Ins. Co. v. Zoppo*, 116 S. Ct. 56 (1995) (cert. denied); *Smithtown, N.Y. v. Walz*, 115 S. Ct. 2557 (1995) (cert. denied); *Boyajian v. Olfacto-Labs*, 115 S. Ct. 2247 (1995) (cert. denied); *O'Quinn v. Kline*, 115 S. Ct. 2579 (1995) (cert. denied); *AJ & AJ Servicing Inc. v. Tudor Associates Ltd.*, 115 S. Ct. 1957 (1995) (cert. denied); *Ezzone v. Hansen*, 115 S. Ct. 1958 (1995) (cert. denied); *Ferrellgas Inc. v. Clay*, 115 S. Ct. 1102 (1995) (cert. denied).

is entitled to a new trial rather than remittitur. Combustion mischaracterizes the proceeding below.

**1.** This Court ordinarily accepts a lower court's findings as to "what occurred at the trial" and "the basis of the verdict." *Minneapolis St. P. & S. Ste. M. Ry. v. Moquin*, 283 U.S. 520, 521 (1931). Here, the district court expressly held that the jury's verdict was *not* infected by passion or prejudice and categorically rejected any suggestion that "these proceedings were, in any way, contaminated or permeated by any aspects of prejudice or bias or favor or affection for or against either party." **A3**:38–**A4**:2. The court observed, from its first-hand vantage point, that the case was presented "fairly," with "not inconsiderable restraints on plaintiffs' counsel," **A4**:7-10; that the foreign parent corporation and Combustion's out-of-state executives "were received graciously," **A5**:4-10; and that the jury showed that it not swept away by passion and prejudice by awarding only $47,000 in damages to compensate for the injury to respondents' land. **A6**:9-11.[31] The court rejected any suggestion "that a jury of the caliber we had here, under the tone and circumstances" of plaintiffs' presentation, "reacted in any knee jerk" way to the foreign status of Combustion's parent. **A5**:4-10. "There is no way that I can make a finding that this trial was fundamentally unfair on the basis of any suggestion or intonation of prejudice or bias or regional or national favoritism. It wasn't." **A5**:11-13.[32]

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[31] Notably, the trial in this case was bifurcated, so that the jury was not informed when it awarded the compensatory damages that it would have a subsequent opportunity to impose punitive damages. For all the jury knew when it deliberated after the first phase of the trial, whatever damages it imposed represented the *full* extent of Combustion's liability. It is thus impossible to contend that the jury was biased and bent on imposing excessive damages on Combustion.

[32] In denying Combustion's new trial motion, the district court explained that "this was certainly not a perfect trial but it was a fair trial," **A4**:29-34, with the defendants enjoying "every opportunity to defend the case," "[a] friendly forum, an excellent jury, a favorable jury charge, [and] a compensatory damages verdict which left a lot on [Combustion's] side of the table." **A13**:14-15, 19-21. "[T]he pervasive aspect of this trial was a spirit of collegiality between the lawyers, cooperation with the Court and overall fundamental fairness." **A5**:20-22. The court defended the jury as "particularly able": "well-dressed, polite, easy to work with, attentive, well educated and from a broad cross-section of the community." **A2**:31-32, **A3**:2-4. The

The court did, of course, find that the original award was "too much" and that it "shock[ed] the conscience of the 13th juror." **A11**:10-14. The "shock-the-conscience" test is a standard formulation for deciding whether a remittitur is appropriate.[33] Nevertheless, because the district court determined that the award was not the product of passion or prejudice, it properly refused to "abrogate the jury's verdict in its entirety" or "write it down to an insignificant" level. **A11**:26-28. The court recognized that, "if I am to preside over jury trials, take their time, take them away from their home, their offices and their labors, I have an obligation to support and defend their efforts." **A11**:18-22. Accordingly, the court announced that it would do "what the jury said to do, but I will do it in an amount that is sufficient, but not superfluous." **A11**:30-31. The court made clear that it did not arrive at the $15 million figure lightly; to the contrary, the judge revealed that "I don't think that there has been a single 48-hour period that's gone by since June 25th, 1993, that I haven't

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court noted that Combustion "was very satisfied with [its] performance in picking the jury," and that "plaintiffs had their work cut out for them." **A2**:32-38, **A6**:11-13.

[33] *Norton v. Caremark, Inc.*, 20 F.3d 330, 340 (8th Cir. 1994) ("'A district court should grant remittitur only when the verdict is so grossly excessive as to shock the court's conscience'") (quoting *American Business Interiors, Inc. v. Haworth, Inc.*, 798 F.2d 1135, 1146 (8th Cir. 1986)); *Dunn v. HOVIC*, 1 F.3d 1371, 1378, 1381 (3d Cir.) (in banc), *cert. denied*, 114 S. Ct. 650 (1993) ("remittitur [is] available only when [an award is] 'so large as to shock the conscience of the court'") (quoting *Kazan v. Wolinski*, 721 F.2d 911, 914 (3d Cir. 1983)); *Capstick v. Allstate Ins. Co.*, 998 F.2d 810, 820 (10th Cir. 1993) ("remittitur of a jury verdict awarding punitive damages is allowed only when 'an award [is] so excessive as to shock the judicial conscience'") (citation omitted); *Kientzy v. McDonnell Douglas Corp.*, 990 F.2d 1051, 1061 (8th Cir. 1993) ("In determining whether remittitur is proper, we must focus on whether 'the verdict is so grossly excessive as to shock the court's conscience'") (quoting *Benny M. Estes & Assocs. v. Time Ins. Co.*, 980 F.2d 1228, 1235 (8th Cir. 1992)); *Scala v. Moore McCormack Lines, Inc.*, 985 F.2d 680, 683 (2d Cir. 1993) (applying remittitur where damages were so excessive as to "shock the judicial conscience"); *Newton v. NBC*, 930 F.2d 662, 668 (9th Cir. 1990), *cert. denied*, 502 U.S. 866 (1991) (remittitur imposed by district court where it concluded that "the award shocks the conscience of the court"); *Raucci v. Town of Rotterdam*, 902 F.2d 1050, 1059 (2d Cir. 1990) (imposing remittitur where award was "shockingly excessive"); *Getty Petroleum v. Island Transp. Corp.*, 878 F.2d 650, 652 (2d Cir. 1989) (district court imposed remittitur where award was "so high as to shock the judicial conscience"); *see also Eiland v. Westinghouse Elec. Corp.*, 58 F.3d 176, 183 (5th Cir. 1995) (remittitur appropriate if award is "contrary to right reason").

thought about the amount of punitive damages in this case." **A10**:21-24.

**2.** Combustion never acknowledges the district court's elaborate findings in this regard, or the Eleventh Circuit's implicit agreement with them in affirming the judgment. Instead, Combustion falsely asserts that respondents improperly raised before the jury the issues of Combustion's out-of-state location, foreign parent, and substantial financial resources. Pet. 23. To the contrary: it was *Combustion itself* that introduced the issues of out-of-state location and foreign ownership.[34] And the $1.6 billion purchase price that ABB paid for Combustion in 1990 (**A70**:6–**A71**:38) properly related to Combustion's value, not to ABB's assets, and it was uncontradicted at trial.[35] Combustion's newfound objections to portions of the

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[34] It was Combustion's own executive who unilaterally raised the foreign ownership issue, **A28**:22-23, evidently trying to impress the jury with his position of responsibility with a major international company. Respondents merely responded by inquiring as to the relationship between Combustion and its parent company, Asea Brown Boveri ("ABB"). Moreover, it was Combustion's witness who went out of his way to say that ABB is located in Switzerland; respondents never asked its location. **A28**:30-33. Moreover, Combustion did not object to this question; it objected only to the *next* question – the identity of ABB's own parent company – and the objection was only "as to relevance." **A28**:36. The judge denied the objection, on sensible grounds: "I will permit a factual background." **A28**:37. Again, even on this question, respondents did not ask the location of the company; it was the Combustion executive who went out of his way to say that the parent company is a Swiss/Swedish company. **A28**:39–**A29**:2. Moreover, the Court clarified that *shareholders* own these companies, so that the jury could not be sure about foreign ownership. **A29**:3-4. Further, Combustion was identified as a company with headquarters in Connecticut and general offices in Chattanooga. **A28**:26-27. Every witness who testified for Combustion was an American; indeed, there was no evidence that Combustion has a single foreign employee.

[35] Evidence of wealth "is traditionally admissible as a measure of the amount of punitive damages to be awarded." *Newport v. Fact Concerts, Inc.*, 453 U.S. 247, 270 (1981); *see also TXO*, 113 S. Ct. at 2722 n.28 (plurality opinion). Moreover, Combustion dropped its objection at the post-trial stage, where it complained only that the court had improperly bifurcated the trial and permitted the jury to hear evidence of wealth while it was still "deciding whether to award punitive damages" at all. 4/25/94 Tr. at 65:22-24; *see also id.* at 66:22-25 – 67:1-3. But the district court explained that Combustion never objected to the bifurcation procedure, *id.* at 58:7-19, 99:5-10, even though the parties were on notice that evidence of Combustion's

closing arguments were not preserved at trial and in any event are entirely without basis.[36]

3. Accordingly, Combustion has no basis for challenging the district court's careful assessment, affirmed by the Eleventh Circuit, that there was no trial error warranting a new trial in this case. Hence, this case falls squarely within the well-established rule that the mere size of a damage award[37] does not indicate passion and prejudice and

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financial position would be admitted in the punitive damages phase, *id.* at 87:8 – 88:1-4; 95:1-7, 109:9-17, and that in any event the bifurcation worked in Combustion's favor. *Id.* at 58:1-4, 98:20-25 – 99:1-4.

[36] • Combustion complains that respondents' counsel "appealed to the jury's bias against out-of-state companies." Pet. 11. But the transcript reveals that the summation's reference to property rights "in Georgia" (**A75**:7-10) simply tracked the *jury instructions'* reference to trespass "under Georgia law." **A69**:18-32.

• Combustion complains about the reference to its wealth in closing argument, Pet. 11-12, but its selective quotations obscure the fact that the reference was entirely proper. **A75**:18-23 ("It's like a man who went to court who had done wrong and he had $5,000 in his pocket. The court said you've done wrong and you need to be punished. The judge said you've done really bad and you've injured a lot of people and I want to hit you hard and he fines him $5,000. Or he might fine him $500, which is ten percent of his $5,000. Or he can fine him $50, which would be one percent.").

• Combustion complains about unspecified "us-against-them rhetoric." Pet. 23. There was no impermissible "rhetoric," but only an entirely legitimate argument that Combustion was a poor neighbor indeed – as reflected by the evidence that Combustion deliberately polluted Graves Mountain, haughtily failed to conduct adequate tests on surrounding streams, failed to maintain a local office or representative to receive complaints, and failed to notify landowners when there were overflows of contaminated water. See pp. 6-10, *supra*.

• Combustion contends that respondents improperly argued that Combustion decided that it "could 'just take our waste and dump it on their land,'" (Pet. 23), but such an assertion was surely a permissible inference from the evidence of deliberate wrongdoing and specific intent to injure that was introduced at trial.

• Combustion maintains that respondents urged the jury "to base CE's punishment on" its wealth (Pet. 23), but the transcript (**A75**:13-31) reveals that the argument simply – and quite properly – alerted the jury that it should consider the wealth of the defendant merely as one of several factors in assessing the award.

[37] Given Combustion's actual wrongful gain of $6 million, respondents do not believe that even the jury's $45 million was constitutionally excessive. It removed Combustion's wrongful gains and then imposed a penalty of $39 million, or 6.5 times that amount; in *TXO*, this Court suggested that a punitive award ten times higher than the expected gain would not be unconstitutionally excessive. *TXO*, 113 S. Ct. at 2722

does not preclude use of a remittitur.[38]

## CONCLUSION

The petition for writ of certiorari should be denied.

Respectfully submitted.

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(plurality opinion). Although respondents accepted the remitted amount, they have never acquiesced in Combustion's claim that the original verdict was excessive.

[38] *Appeal & Error*, 5 Am. Jur.2d § 944, at 372 (1962 & 1995 supp.) ("The mere fact . . . that a verdict is very excessive does not necessarily show that it was the result of passion and prejudice so as to deprive the court of the power to correct the error by directing . . . a remittitur"); *Anthony v. G.M.D. Airline Serv. Inc.*, 17 F.3d 490, 494, 496 (1st Cir. 1994) (remanding for remittitur where size of award was "unconscionable" because there was no evidence that allegedly improper closing contaminated jury's liability verdict); *Dunn v. HOVIC*, 1 F.3d 1371, 1383 (3d Cir.) (in banc), *cert. denied*, 114 S. Ct. 650 (1993) (rejecting argument that "an excessive jury determination [is] per se proof of passion, prejudice, or bias" and explaining that "[m]any courts have sustained or ordered remittiturs" in such situations) (citing cases); *Brunnemann v. Terra Int'l, Inc.*, 975 F.2d 175, 178 (5th Cir. 1992) (explaining that "[d]amage awards which are merely excessive or so large as to appear contrary to right reason, however, are subject to remittitur, not a new trial," and finding that "the defects in the award do not seem to be the product of passion or prejudice, therefore remittitur would be more appropriate than a new trial"); *Superbird Farms, Inc. v. Perdue Farms, Inc.*, 970 F.2d 238, 249 (7th Cir. 1992) (imposing remittitur, despite excessive award, because district court found "that the jury was not swayed by passion or prejudice"); *Seidman v. American Airlines, Inc.*, 923 F.2d 1134, 1140 (5th Cir. 1991) (approving remittitur where "[t]he district court found that the verdict was not a result of the passion and prejudice of the jury but was merely excessive");*Ohio-Sealy Mattress Mfg. Co. v. Sealy, Inc.*, 585 F.2d 821, 843 (7th Cir. 1978), *cert. denied*, 440 U.S. 930 (1979) ("the district court was mistaken in taking the size of the jury's award as a demonstration that there must have been prejudice created somewhere"). See also note 33, *supra*.

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February 5, 1996

## TABLE OF APPENDICES

APPENDIX A

Transcript of Hearing on Post-Trial Motions, April 25, 1994 ..... A1

APPENDIX B

Trial Transcript Excerpts, June 21 to June 29, 1993 ..... A16

APPENDIX C

PX-3 (aerial color photograph of Graves Mountain minesite taken in Spring, 1991) ..... A77

# APPENDIX A

## Transcript of Hearing on Post-Trial Motions

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF GEORGIA
AUGUSTA DIVISION

| | | |
|---|---|---|
| CHERYL MALOOF JOHANSEN, ET AL., Plaintiffs, | ) | |
| vs. | ) | FILE NO. CV191-178 |
| COMBUSTION ENGINEERING, INC., Defendant. | ) | |

Before: Hon. DUDLEY H. BOWEN, JR., District Judge

at the Federal Courthouse Building, Augusta, Georgia, on the 25th day of April, 1994, commencing at the hour of 10:00 a.m.

RICHARD A. DUERINGER,
CERTIFIED COURT REPORTER
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APPEARANCES OF COUNSEL:

| | |
|---|---|
| On behalf of Plaintiffs: | JOHN C. BELL, JR., Esq.<br>WILLIAM A. PANNELL, Esq.<br>JOHN M.B. LEWIS, IV, Esq. |
| On behalf of Defendant: | SAMUEL FRANKEL, Esq.<br>JAMES BRISSETTE, Esq.<br>PERCY J. BLOUNT, Esq. |

[88]

THE COURT: . . . .

I want to talk the about the case generally and specifically. And to the extent that I talk about it specifically, of course, I will be ruling on these motions. My recollection may be [89] flawed with respect to specifics, but not so much with respect to a total overview of where we are and what we have done.

We are little later in all of this than I had anticipated that we would be. There are a lot of reasons for that other business, a not so quick finalization of the transcript and maybe it's good to let a little time pass between a trial and final judgment especially when one of us, Mr. Frankel, [not] feeling so well. So the right amount of time plus some has passed and we can look at the matters in a little bit more of a detached way. Our objectivity will be enhanced by our reflection. And it's a time when everybody here needs to employ some objectivity.

I'm going to make a few comments that bear on the totality of the case and, of course, on the pending motions. I've got a raft of pending motions. I'm not going to speak to everyone of them with respect to every plaintiff. I think I can summarize my views and then put together an order which will fairly dispose of each of the pending contested matters.

What I'm going to say is an endeavor from a neutral point of view not that of an advocate. To [90] recall matters from a prospective point of view and without the benefit of hindsight that we've all got.

This was a case, when it came time for trial, in which counsel knew a great deal more about it than I did, obviously. That occurs in most of our cases, but here counsel had the benefit of trying an earlier case that had some similarity of issues and the principles of law were not dissimilar. I did not try the other case and didn't know much about it then or now, but you certainly had that background. We picked a jury from what I would call to be a particularly able venire. And when I saw the eventual jury panel that was to try this case I had some inarticulate, but noticeable observations within my own mind that the plaintiffs had their work cut out for them. And it was my view at that time, from what was apparent in the make-up of that jury panel, that the defendant, Combustion Engineering, was somewhat pleased with the way the jury selection had gone.

This, even among the quality of jurors in the Southern District of Georgia and particularly this division, I think was an unusual jury. They [91] were well-dressed; polite; easy to work with; attentive; well educated and from a broad cross-section of the community.

My recollection of the people that were involved here is that it was certainly not a half-driven jury and they put some time in the case and they reached a verdict which has, in turn, sent out some repercussions, perhaps of tidal wave proportion. I think that I could say and, if the truth were known I might say on behalf of anyone who was here, no one ever expected that jury would do what they I did. It underscores the uncertainty of litigation. Indeed, that's what it is all about, isn't it? If one elects a trial under our system and takes the risk of a verdict at a jury's hands one may win, one may lose, and one may lose big and that's what happened here.

Indeed, that is one of the virtues of our system although it is one for which the system is frequently condemned. As I have said in past and don't mind saying now it is the uncertainty of the jury results that keeps us from trying so many cases that we can't keep up with our businesses. In a way, so to speak, it keeps us honest. We never know what they are going to do. No matter what they look [92] like you just can't predict them.

The case could have been settled at one time for a million dollars roughly. I don't have a specific recollection about, but I know I would have done everything I could to get Mr. Bell to take it. And I think there was some ruminations of a quarter of a million dollars or something like that. It didn't get settled, it got tried.

I have heard a great deal today about the excessive amount of the punitive damages. No one is concerned about the amount of the compensatory damages, of course. And there would be, no doubt, acclaim from the defendant's side if I simply just limited the plaintiff's to the sum of $250,000 each. No defendant that I have every ever heard from has ever seen an award of punitive damages to be reasonable or thought that they were made wisely or with restraint imposed in their amounts.

I want to touch on a few things specifically and I will do, perhaps, more of that in my eventual order that I will write and file to resolve all of these motions.

First of all I cannot say that these proceedings were, in any way, contaminated or permeated by any aspects of prejudice or bias or [93]

favor or affection for or against either party. And I'm going to say, as directly as I know how, that that is not a matter of concern. The tone of the trial generally is not a compound in which the on elements are the actions of counsel. Fortunately counsel in this case are gentlemen and most often gentlemen act as such. Sometimes it is the responsibility and the purpose of the Court to require them to do so. The tone of this case and the way that it was presented to the jury was an atmosphere which allowed the plaintiffs to present their case fairly, but with some not inconsiderable restraints on plaintiffs counsel in so doing.

Mr. Bell and his colleagues are resourceful people. Mr. Bell and his colleagues have not transgressed (any rule) or principle of ethics, of practice or gentility. Sometimes I have to insist that their enthusiasm be contained. I will tell you, just as Mr. Bell and Mr. Blount will tell you, that I have done that when the need has arisen in Mr. Bell's cases, but I am not going to confuse that enthusiasm with malevolence or any animus of impropriety.

I expect an advocate to speak of pollution in an environmental case. I expect an [94] advocate, whether that be the Assistant United States Attorney in a drug case or plaintiffs counsel in a pollution case, possibly, to speak of garbage. And I expect for counsel for the defendant to express himself and whenever possible, to portray his client, with a Snow White-like innocence. In short, in this case counsel did their jobs. They did all those things.

Mr. Frankel, Mr. Brissette, Mr. Blount all responded at the appropriate times with the indignity that is expected of the righteous. We heard some excellent speeches and the jury told us what they thought about it.

The tone of the case I believe was not directed by counsel. I believe it was directed by the presiding judge and I am not saying so for any reason of immodesty, but it is my view that this was certainly not a perfect trial, but it was a fair trial. Everyone was treated alike with the exception that I probably kept my thumb on Mr. Bell a little bit more than anybody else. I ruled in favor of the defendant on just about every matter relating to the jury charge. I split it up to where punitive damages would never be mentioned until the last. Somewhere in all of this, if it's not in the [95] record, it is in my mind at pretrial or the charge conference or at some other time, there was ample notice that if we got to punitive damages the door to the

financial condition would be open. The passage that I read earlier during counsel's argument is a dead ringer for a lawyer perfecting the record and the Court so noted.

We had people from out of town and they were graciously received. We have a foreign parent corporation. And to suggest that a jury of the caliber that we had here under the tone and circumstances in which this case was presented to them have reacted in any knee jerk or reflexive or hair-trigger way to that fact underrates their service. They did their job as they saw their duty and their oath, just as all of us did ours.

There is no way that I can make a finding that this trial was fundamentally unfair on the basis of any suggestion or intonation of prejudice or bias or regional, or national favoritism. It wasn't. Such matters were brought to their attention and, indeed, this federal district court sits in diversity cases for the very same purpose recognized by the framers of our Constitution and those who wrote the judiciary acts of the 1780's. [96] That is to prevent so called home-cooking in judicial proceedings where there are foreign defendants or Plaintiffs.

In my view instead of any fundamental unfairness permeating this trial the pervasive aspects of this trial was a spirit of collegiality between the lawyers, cooperation with the Court and overall fundamental fairness.

There was a mention about some joviality on the part of jury indicating that the foray into punitive damages may have been abrupt. I do not think that is supported by anything other than speculation and a rather imaginative speculation at that. We are in temporary quarters in this building and occasionally when there is some louder talk or noise some verbalization can be heard from that jury room. That's why normally I keep everybody out of courtroom while the jurors are deliberating. There may have been times when some laughter was heard from the jury room. I have heard that many times when they come and go when, no doubt, some juror cracks a joke. Jurors are human beings and I will put it very frankly I try to run a relaxed courtroom. That's not to say that it's an undignified proceeding. [97]

I simply believe that people are more likely to be comfortable in understanding and performing their responsibilities if they are relaxed and not scared to death.

People get to know each other while serving on jury. Some fast friendships are formed from time to time. They have a common

mission and common goal to get out of here before Friday afternoon. And I have a recollection somewhere that we heard some laughter coming from that jury room. I have no speculation on that account nor will I recognize any to the effect that because of that, unsupported by anything else, that this punitive damages verdict by this jury, as seriously as they undertook their duties, was a frolic of any sort. I speak to those assertions directly to dispute and expose them for what they are and that is speculation.

The dissatisfaction with the jury comes up only after hearing their second verdict. No doubt the defense was satisfied with the verdict of $45,000 total compensatory damages. And I have no doubt, while I don't want to dwell on this subject, that the defense, in general, was very satisfied with their performance in picking the jury. **[98]**

There was a decision and it was, I think, a decision made in the cooperative spirit to which have heretofore alluded. Nevertheless, that decision was made, at least in part, on a tactical and strategical basis. That was the decision to go forward and complete the trial not withstanding Mr. Frankel's illness. Everybody knows that I was greatly concerned with his condition and there was no doubt in anyone's mind that I would have continued the matter, postponed it or conceivably I would have mistried it upon request. However, I think the decision to go forward with it does provide some force to the conclusion of the defendant's earlier satisfaction with the jury that had been selected. It is my view that satisfaction ran so far as the proposition that this jury was probably better than what it could ideally hope for if another jury selection occurred at another trial.

If the bifurcation of the entirety of the case for compensatory damages from that part of the case that dealt with punitive damages is properly termed as novel or unconventional then so be it. I've done it several times and never found it to be a problem. I have always found it to be applauded **[99]** by the defense attorneys. I have found it to have mollifying effect promoting the wise and restrained consideration of the question of whether to impose punitive damages and if so in what amount.

Whether it be termed unconventional or novel it was, in this case, accepted by the defense and I believe, viewing the question prospectively instead of retrospectively, was considered by the defense as something of a tactical advantage at the time.

The Court's charge was almost, if not entirely, the product of the defense submissions with a lot of discussions in between. No one was surprised by anything that I told this jury. We had a number of conferences, sidebars or in camera or other discussions about the charge and it was not matter of any bombshell.

While I don't want to decide the issue on whether there was a contemporaneous or timely objection to that part about the inference versus presumption. It's true that the Court did not invite exceptions to the charge. I don't do that in the presence of the jury. But I did let counsel know that I was going to give the jury the law on the subject before argument so that the jury could **[100]** understand what the argument was all about. The jury seemed to welcome that, as I recall the way their eyes brightened when I told them I was going do that and I have found it to be a productive practice.

In any event the objection that was raised, as I recall the transcript, was raised after the jury verdict, not even when they went out to the jury room. I will leave that where it is because it is my view that the law I told the jury is correct.

I am not going to preside, in intellectual honesty, in a proceeding, at a motions hearing or otherwise, when an equation is drawn between an inference and a presumption. We all know it is one of the things we learn in the first year. That a presumption has a very significant legal importance and effect. A presumption is a showing beyond which no further proof is initially required. A presumption transfers either the burden of proof or the burden of going forward with the evidence or in some situations it may be termed a burden of persuasion. A presumption creates the basis for the finding of fact which pointed to that a prima facie case against which the party opposing the presumption is obligated to provide some **[101]** rebuttal. That may be a loosely worded definition, but its clear a presumption is not the same thing as an inference.

An inference is, as I sometimes tell a jury, something that they may read between the lines. An inference is what reason and common sense lead us to draw from the facts which are otherwise established by the evidence in the case. An inference, it seems to me, is about the same thing as circumstantial evidence. An inference is, occasionally, I would say, most often, the only way of determining the intent of the person who acts or omits. One shot may be fired in anger or passion. Two shots conceivably, but five shots with one behind the ear is a set

of facts from which one may draw the inference, but not presume, in a criminal case, that a person had-the specific intent to commit murder in the first degree.

Presumptions are not favored in criminal law. I don't suggest that this case has any criminal proportions, but I cannot retreat from my observation that there is an analogy to be drawn between the Hunt against Bentley case and the inference language that Mr. Brissette has brought to my attention and this case. [102]

I have no concern about the language that I used in telling the jury that you may infer that party, whether that be a corporation or a [illegible]ral person, intended the natural and probable consequences of acts which are knowingly done or knowingly omitted. And I underscored the word knowingly in both cases.

As requested by the defendant I charged the jury with respect to specific intent to cause harm. One may reach a conclusion of specific intent by direct or circumstantial evidence and if that requires an inference, so long as it be reasonable I don't have any problem with it. There is no equation between an inference and a presumption.

Now, I'm going to rule on these motions and I haven't finished talking yet.

The motion for judgment as a matter of law is denied. I need not address the point that was raised so delicately about the lack of a motion made at the close of the evidence or later as I would have permitted it at any time. It is my view it ought to be done on the merits. And I will not supplant this jury's deliberations or its wisdom, if that be the case, with my own thought process.

I did not think as much of this case as [103] the jury did, but that's not my job. The jury heard the evidence, they assessed it and I will say that much of what I heard at the motions hearing seem to be a defense or an argument that was raked out of the coals of this trial, so to speak. A theory to the effect that this defendant, which had consistently followed, abided by and complied with all state laws and regulations and licensing requirements, had been called to task in this courtroom and brought over a barrel required to cough up an extraordinary amount, an exorbitant amount, of exemplary damages through some sort of extortion that was arbitrary and capricious on the part of this jury, and that's not the case.

There was very little evidence of compliance and non-compliance and my motive in keeping that to a minimum, and I believe stated in the record on more than one occasion, was to keep on track in this trial and not let us be drawn down any side paths or side tracks in litigating administrative matters. My rulings in this area were cheered by the defense.

My recollection, although I cannot put my finger on the page of the transcript of the trial or pretrial, is that this method of presenting the case **[104]** to the jury, that is on the facts of these land against this defendant, was supported in every way by the defense. That is to keep the state regulatory and administrative and other compliance aspects out of the case in so far as it was fairly possible to do so and to have the jury understand the case. My recollection, which right now all I can say is a recollection, is that position was urged and supported by the defense and what I heard during the motions hearing seems to imply, if not directly stated, that there was evidence in this trial that this defendant was in compliance at all times. There is very little evidence about compliance and non-compliance and purposefully so.

The fact that $1.2 million was spent over a number of years is powerful evidence. I'm sure the jury grappled with it and considered it in the question of whether there was such a want of care as to authorize some (here we go again) presumption of a conscious indifference to the consequences. I suppose the statute here would not be in compliance with the Hunt case either.

In any event it was powerful evidence. The jury considered it, but it could well have considered, and apparently it did, how little an **[105]** effort that actually was under circumstances. Yes, $1.2 million sounds like the world to me in most contexts, but not in all. And in the scheme of things, from time to time, depending on one's perspective, $1.2 might be a mountain of money in size to Graves Mountain, or it might be peanuts and they may well have thought that it was a cheap way of buying time.

$1.2 million is powerful evidence, but that memo that was admitted after, as I recall the door which authorized it was opened, was also powerful evidence. And we cannot point to one particular element on a list of 14 or 18, however many it was on that chart, we have to consider the evidence in its totality. Having done so the motion for judgment as a matter of law is denied.

Now, the motion to stay the execution or proceedings on the judgment I consider to be the functional equivalent or the effect of some of these other motions. Obviously, the defendant wishes to keep any execution or any finality in the case from accruing until the entirety of the case is concluded. I won't do that. We have spent enough time on this and too much time on the transcript and **[106]** it is over as far as damages for these plaintiffs are concerned. Unless counsel are more amenable now than they were earlier toward settlement I will amend the judgment.

Obviously, the claims for equitable relief have not been adjudicated and the judgment that is entered is only a judgment with respect to money matters between these plaintiffs and this defendant. There will be a 54(b) division. I will reserve jurisdiction over the plaintiffs' claim for equitable relief. The time for an appeal with respect to the compensatory damage and punitive damages and the litigation expenses will begin to run upon the date of the amended judgment. There will be no stay of execution from this court and there will be a determination of litigation expenses and the amount of litigation costs. I don't intend to divide that up among the plaintiffs unless that' necessary.

Now, with respect to the motion for a new trial: I don't think that there has been a single 48-hour period that's gone by since June 25th, 1993, that I haven't thought about the amount of punitive damages in this case. Every time I see Mr. Blount I think about this case. Every time I see Mr. Bell I **[107]** think about this case and I see one or the other of them every week or so. I can't say I thought about it everyday, but I can say every 48 hours this thing comes up to my mind.

As I said before we were surprised and I don't think any of us was any more surprised than Mr. Bell. My then courtroom deputy, who had read lots of verdict. Had some trouble reading the amounts. I think I took it over. I think it's fair to say that our surprise went beyond the mere acknowledgment of the unexpected and into the area of shock.

I am not going to denigrate or belittle this jury's effort. I have already spoken what I thought of them. It was a good jury and -- wasn't it a 12-member jury?

MR. BELL: Yes, your Honor.

THE COURT: I don't know if you recall who insisted on it being a 12-member jury?

MR. BELL: The Court, your Honor.

THE COURT: It was I. And I did that because the only aberrational verdicts I have ever had in 14 years, on the federal district bench were from six member jury's and I was determined that this case ought to have a 12-member jury and I [108] didn't hear anything to the contrary. That was the reason for it and I may have said so at this time.

But the total sum of 45 million dollars, even in the context of the financial condition of this defendant, is too much. And whatever kind of window dressing we want to put on it as shocking the conscience of the 13th juror, it is beyond the amount that might deter the wrongdoer. Whatever fancy name might be appended to it when I think about it in my order, to put it down as $45 million gives the system a black eye. It's too much, but it did send a message of the importance and the significance that these jurors attached to the defendant's conduct and that message was not lost on me. And I have an obligation, if I am to preside over jury trials, take their time, take them away from their home, their offices and their labors, I have an obligation to support and defend their efforts and their verdicts and to be advised by them: and when there is some unpredictability to realize that we lawyers and judges, who try a lot of cases are not omniscient. We may not see things as others see them, and we may be all too lost sometimes in our introverted view of the maelstrom of litigation to see what is really happening around [109] us. So I do not intend to abrogate the jury's verdict in its entirety and to write it down to an insignificant, but comfortable level that I know will not be appealed and may spread some money among the pockets of these nice local folks. I am going to do what the jury said to do, but I will do it in an amount that is sufficient, but not superfluous. $45 million shocks my conscience.

I did not speak to the financial evidence. I think it's a straight forward question. I think that it was fairly announced at an earlier time that that evidence would be admitted if the question came up and the question did come up and I admitted it. I think this is probably one of most apposite cases that I have seen where financial information or information relative to financial condition ought to be admitted.

A million dollars is a mere inconvenience. It would be as much corporate blood as a mosquito may draw. But when it gets on up to $45 million perhaps much benefit has been achieved already by that verdict alone. $45 million is more than is required to deter the wrongdoer. I have no equivocation in my mind about the decision to admit the financial information. I have a lot of friends, [110] some very, very successful, very powerful people who have bent my ear from time to time about punitive damages. Some of them on our so called Biden Committee. I have listened to them with interest, but this is not a legislature it's a trial court. The legislature of Georgia and that of the national sovereign tell us what to do and what tools we have in the box to do it with and that's our job, not to impose our personal views. And sometimes we have to figuratively hold our judicial noses and grit our judicial teeth and do whatever is required of us. In this case I am of no particular view. Indeed, while judges may be loathe to admit that some cases are more difficult because of the way they feel about things, this is one where I can very directly and openly say that my equanimity is intact. I don't have any views. I appreciate the environment. I enjoy the outdoors. And I dearly love all the material things that money buys and would make my life comfortable and I assume kyanite has made my life more comfortable. I don't know, but I reckon it has. I enjoy pretty scenery, walking around in woods and I like to see clear mountain streams, but I'm not in any dilemma here.

So I'm going to grant the motion for a [111] new trial conditioned, at the option of the plaintiffs, to take a lesser amount of punitive damages instead of a new trial. The defendant will have no option in that. But the plaintiffs will be offered the opportunity, unanimously, to accept a lower award of punitive damages. I'm not going to let one plaintiff mess up the deal or let one plaintiff get a better deal. I'm going to require unanimous decision by the plaintiffs or I will deal with it in another way. And I suppose the only question is the amount. The amount is in the envelope because I don't want it known right now. Because I think the case could have been settled less expensively before and the last time we met at a status conference the case could have been settled for a very significant sum and the case can be settled today.

Maybe it ought to be litigated. Maybe that's the best way to dispose of it. But we still have the equitable half of this case to go and I do intend to do something with it.

I said I wasn't going up there while it was so hot in August. I don't want to go into a second career cleaning up Graves Mountain. I've got some pressing matters that might involve dividing up [112] the state for other purposes.

There is a lot to be done with Graves Mountain which is a very important part of what we've got to do. To the plaintiffs, y'all put together a case and through capable counsel, after spending what I consider to be a lot of money on it you did what you had to. You got a trial that was probably a little too fair from your point of view. You had to make a presentation that was a little flatter than you had hoped. Low and behold it was bell ringer time, big time. And to the defendant's you had every opportunity to defend the case. You did so capably of both before and after Mr. Frankel's most unfortunate departure on Wednesday, think it was, or Tuesday afternoon, I can't remember which. One which was totally unpredictable and unavoidable. Everything was going well. A friendly forum, an excellent jury, a favorable jury charge, compensatory damages verdict which left a lot on your side of table and then the bell ringer. The unpredictability of the jury result rose to proportions theretofore unthinkable.

We were at a watershed before we started the trial. We were at a watershed, and I mean no pun, at our time of trial, at the status conference [113] or whatever it was that we had in November or December and I think we are at a watershed point in the case now. You're are going to get a write-down. You're going to have a chance to continue to litigate the case on the equitable aspects of it and the plaintiffs have got, even with the write-down, enough interest in pursuing the matter to make it literally a career activity.

I have a vision for Graves Mountain and don't mind telling you what it is. Obviously, Combustion Engineering, in it's corporate mind, wishes it had never heard of the Graves Mountain and would like to get rid of it if there were any workable, feasible way of doing so. I can't imagine there is anything under there that's valuable enough to keep it in today's legal environment. It could be an asset, or somehow it could be turned into one. Until nature or man covers it up as the millennia had done before we disturbed it, it is going to

emit some discolored, possibly some damaging effluents. And, as Mr. Frankel so authoritatively pointed out, that's going to go down hill. There are three watersheds from my recollection of the maps, and a few property owners. I don't know if anybody was listening, but [114] I when I made my observations about the question of equitable relief I sent out a signal that the plaintiffs, in order to have equity, would have to do equity themselves.

Maybe somebody has figured it out, but these watersheds and streams, in my view, from what I heard at that trial, and I'm certainly willing to have my mind changed, but my current view is that the best way for them to return to a more acceptable level of quality is to continue some efforts in the sedimentary ponds that are there. To improve them and to allow the streams and water courses, in so far as it is possible, under all of the circumstances, to revert to a wilderness area. In order to do that under the vision I presently have which, of course, is subject to modification, elimination or change, is to acquire title from the plaintiffs to that portion of their properties which are affected and that portion which is necessary to create a wilderness area at or near that site which might very well be an area of geological interest. But I don't expect to have it all come from the defendant. I expect to get a lot of cooperation from the plaintiffs. And I expect to a put a person in charge of it who is interested in it. Who will [115] report to me and monitor the activity and who will mediate disputes and who will devise a mechanism by which title to all of this can be acquired safely and conceivably to the point of an act of the legislature of Georgia, but at any rate to rid Combustion Engineering of its albatross and to allow this matter to be concluded.

I am willing to put in the time and effort and some of the innovation into it and I have enough leverage to require the cooperation of the individual plaintiffs, I believe, to get them to do what I want. And, I think, candidly, Mr. Frankel, I'm glad you brought Mr. Brett. I think it's up to y'all, whether you want to continue to litigate, get some more surprises, or come up with enough money, which would be a lot more money than you ever wanted to. A lot more than you ever thought you would have to, but an awful lot less than $45 million and get in a program of cooperation so we can bring this matter to a conclusion.

I'm certainly willing to discuss it. That's why I put the amount of the write-down in the envelope. You can put the case number on

the front of the envelope, Ms. Schneider. Put it in your purse and after this hearing put it in the clerk's [116] vault and we'll see. Because I think it would be better if you didn't know right now.

On one-hand you have the write-down to pay and the costs of the injunctive aspects of the case or you may win the appeal, come back for another trial or no trial at all. Such are the uncertainties which we all face. I haven't given any more thought or done any more investigation or any more research about this so called vision for Graves Mountain than I have told you about, but I haven't seen a sows ear yet that can't be made, one way or the other, into a purse for somebody. And this one has some potential and it certainly has a future. It is going to be with us so we might as well do something with it now.

So if you all want to take a break a and think about it and let me know where you are I will be happy to talk to you individually or together, any way you want to or we can open the envelope.

Why don't we take a recess until 4:00 any how.

(Hearing concluded.)

# APPENDIX B

## Trial Transcript Excerpts

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF GEORGIA
AUGUSTA DIVISION

| | | |
|---|---|---|
| CHERYL MALOOF JOHANSEN, ET AL., | ) | |
| Plaintiffs, | ) | |
| vs. | ) | FILE NO. CV191-178 |
| | ) | |
| COMBUSTION ENGINEERING, INC., | ) | |
| Defendant. | ) | |

Before: Hon. DUDLEY H. BOWEN, JR., District Judge

at the Federal Courthouse Building, Augusta, Georgia,
from June 21 to June 29, 1993

RICHARD A. DUERINGER,
CERTIFIED COURT REPORTER
P.O. BOX 2106
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APPEARANCES OF COUNSEL:

| | |
|---|---|
| On behalf of Plaintiffs: | JOHN C. BELL, JR., Esq.<br>WILLIAM A. PANNELL, Esq.<br>JOHN M.B. LEWIS, IV, Esq. |
| On behalf of Defendant: | SAMUEL FRANKEL, Esq.<br>JAMES BRISSETTE, Esq.<br>PERCY J. BLOUNT, Esq. |

## EXAMINATION OF JULIA GASKIN, ENVIRONMENTAL SCIENTIST WITH EARTH SYSTEMS, INC., BY PLAINTIFFS

**Tr. 99:13-23**

Q. From that initial trip or two trips in early 1992, were you able to determine whether or not there was, indeed, a problem with acid mine drainage leaving the Combustion Engineering property?

A. We have these problems with base drainage because of the high manganese, high iron and sulfate levels because of the acid mine drainage created by the breakdown or oxidation of the pyrite and it's converted to metal sulfate. When sulfate is present in water it becomes sulfuric acid.

**Tr. 103:4-15**

Q. Could you have used a reference [stream] up on Combustion Engineering property?

A. No.

Q. Why not?

A. If you have a mountain and you have taken off the top part of the mountain you have totally changed the way the water moves on the mountain. If the water falls here and goes into the soil and moves down into the bedrock and gradually finds its way down into the creek. If you [had] extensive disturbance like you have here it would not be a representative situation.

**Tr. 107:20-108:11**

Q. Do you have an opinion as to whether or not the problems with acid mine drainage at Graves Mountain are being solely caused by thunder storms?

A. No, they are not. You have acid mine drainage coming from the old tailings and the pyrite ponds and much of that is coming from the seepage **[108]** from those areas and sub-surface flow. So it is not just a problem that you have when there is a rainfall event.

This is something that is constant. One reason why we looked at sampling stations over a period of time [is] because if you go out and you do a sampling and the pH is low it tells you the pH [is] low at that time. But by looking at the station over a period of time that showed

that consistently the pH was low not just during a rain storm or dry conditions.

**Tr. 109:1-110:11**

Q. Over this period of time doing the samplings at these various stations what was the average pH at station C-1?

A. 3.09 as it existed on the Maloof property.

Q. How many times lower is that pH than what you would expect to find naturally occurring in this geographic region?

A. It was a thousand times more concentrated than I expected to find.

Q. What was the mean of the aluminum concentration you found in that location?

A. 27 milligrams per liter.

Q. What is the normal range of aluminum that you would expect to find at this station?

A. Several milligrams per liter.

Q. What was the average of the aluminum that was found in the reference stream in the area unaffected by the mine?

A. It was 0.16 total aluminum.

Q. How many times greater would that be, approximately, the amounts of aluminum you were finding at C-1 as opposed R-1?

A. You have .02 into 27 so there are several.

Q. What is the level at station C-2, as it **[110]** existed under 378?

A. At C-2 the pH average concentration with the average pH was 4.37.

Q. And the average pH down at C-3?

A. It was 2.99.

Q. What was the average pH down at C-4, down below the holding pond?

A. It was 6.84.

Q. And at C-5 as it enters onto the Mr. Jones' property?

A. 3.97.

**Tr. 111:13-113:18**

Q. From the study at stations C-1 through 5 as well as the reference stream, and based on the chemical analysis of those streams were you able to reach a conclusion or an opinion as to whether or not the streams at these sampling locations were polluted?

A. Yes, sir.
Q. Do you have an opinion as to whether or not the stream at the location C-1 is polluted?
A. Yes, sir.
Q. What is that opinion?
A. I would say that it has been severely impacted. The pH is very low, the sulphate was [112] high, specific conductivity was high and the metals were relatively high. These are not conditions that I would expect to the find in the Piedmont area of Georgia.
Q. Do you have an opinion as to whether the stream at monitoring station C-2, whether or not the water at location is polluted?
A. Yes, sir.
Q. What is that opinion?
A. Again I think you are seeing a very low pH level and it has indications that there is problem at that site.
Q. And at monitoring station C-3, do you have an opinion based on the data you obtained, whether or not the stream at that location is polluted?
A. Yes, sir, for the same reasons.
Q. And at monitoring station C-5, as it enters the Jones property?
A. Yes, sir. Again the pH is lower, the sulphates are high and the specific conductivity is higher than I would expect to find in this area.
Q. Do you have an opinion whether the stream located a monitoring station C-4, whether the stream is polluted at that station? [113]
A. Yes, sir. That's a little different situation here because they treat the water coming out of the holding pond. The pH there is generally within the range you would expect to see in this area. The average is 6.84, but if you look at specific conductivity it is much higher and sulfates are much higher at 209 milligrams per liter. The background level in the Piedmont area is about 5 milligrams per liter.
The other problem with the stream is there is a tremendous amount of sediment moving through the stream and there are periodic releases of very low pH water from that site.
We had some documents submitted to EPD which showed there was a pH of 3 just below that point in December of 1992. So you have periodic flows of very acidic water and other water quality problems in that stream.

**Tr. 121:13-122:11**

Q. Is there anything about the composition of the stream that you would not expect to normally see in the Piedmont?

A. The color is much redder and primarily it appears to be due to sedimentation in the stream bottom that looks like iron hydroxide that has precipitated on the stream bottom.

In some of those earlier shots you could see big build-ups of foam at the confluence of this stream that runs through the Maloof property and this stream that's heads up to this pond and runs down there. It was very striking to me when I visited the site in this area you can see that it runs clear, the stream that runs down from the mountain. Then you can see how red the stream is that comes down through the Maloof property. Where that joins there is a clear color difference, where those two creeks join.

Q. What are we seeing now?

A. This is beyond the confluence towards the Johansen property.

Q. What is the white stuff that you see?

A. There was quite a bit of foam that look like meringue on top of the water.

**EXAMINATION OF DR. WADE NUTTER, PROFESSOR OF HYDROLOGY AT UNIV. OF GEORGIA, AND SCIENTIST WITH EARTH SYSTEMS, INC., BY PLAINTIFFS**

**Tr. 158:24-159:20**

Q. Have you been able to determine whether or not that creek as it goes through Mr. Maloof and **[159]** his sister's land and onto property of Clarence Norman has been affected by acid mine drainage?

A. Yes.

Q. What is your opinion?

A. That the water was impaired and fell well below the quality of the water expected from natural flows from forested or even an agricultural area.

Q. Have you been able to determine what causes that water impairment?

A. The impairment is the result of the drainage from the activity related to the mining on Graves Mountain.

Q. What form is that impairment?

A. Principally a considerable reduction in acidity, excuse me the pH, which is a low acid condition in the stream. The specific conductivity which the major constituent of the water is considerably elevated when there [are] more dissolved minerals in the water. The aluminum is elevated and also the sulfates are elevated.

**Tr. 161:10-12**

Q. Is this water [from the Maloof stream] suitable for normal usage or recreational or farm purposes?

A. No.

**Tr. 161:22-162:18**

A. . . . The pH is considerably reduced [in the McGill stream]. The pH values in some cases are below three or right at three that would be equivalent to a lemon juice type acidic on a pH scale. There is considerably **[162]** elevated conductivity. Sulfates are on the order of 100 times or more higher than what would be expected in the normal stream flow in the area.

Q. What about iron?

A. The iron is elevated and so is the aluminum. There is an elevation of other metals, sulfates, specific conductivity and a depression in the pH.

Q. Is that polluted water or unpolluted water?

A. It is polluted.

Q. Is it fit for use as a pond farm?

A. No.

Q. Are there minnows in the creek?

A. No.

Q. Can any animals live in that water?

A. I am not familiar with any that do. I haven't seen any.

**Tr. 164:23-165:8**

Q. Is the erosion process a natural process?

A. It is a natural process, but in these type streams there would [be] small amounts, but the **[165]** erosion activity has been accelerated because of the disturbance due to the mining activity.

Q. What do you mean by disturbance?

A. Moving the soil around taking off the ground cover. Grass covers all of those things and protects the soil from the falling rain drops so there is no way that the soil can be dislodged and moved.

**Tr. 166:2-14**

A. . . . there is lot of interaction and so forth in the stream, but the minerals are still elevated.

Q. Would that affect whether or not this water is fit for feeding animals and farm ponds and things such as that?

A. It certainly has limited use. I would certainly not want to use it to say water cows with or something like that. I wouldn't want cows to go in there and drink from it. It might support some organism in the stream because the pH is higher, but it is not what you would call natural background water.

**Tr. 167:6-168:16**

Q. Do you have an opinion as to whether or not that creek, as it enters the Jones family property, whether that water is affected by the mining activity?

A. Not only measurements meaning Earth Systems measurements also show the pH is considerably reduced. I[t']s around three and a half to four which is again much below what we would expect. We expect a natural background of a pH of six to seven. One pH unit represents a considerable change in the pH. It's a very severe scale.

The specific conductivity and sulfates are all considerably elevated above normal background conditions. My conclusion is this stream is polluted at that point.

Q. Could you tell us what in your opinion is of the cause of that pollution?

A. Again there is drainage coming through the mountain sides from the mining area. Water is entering the stream after moving through the **[168]** tailings ponds, through exposed minerals and draining the stream and bringing it with it dissolved minerals as well as sulfuric acid. That is what is reducing the pH.

Q. That's on the CE mining site?

A. Yes.

Q. Would that be a natural occurrence?

A. The types of readings we got?

Q. Yes.

A. No.

Q. In your opinion would that creek, as it flows through the Jones family tract and the Richards land, is it safe to use as a farm pond, to use as water for your animals or to let your kids go swimming in it?

A. No.

**Tr. 170:5-171:6**

Q. Is it your understanding that Combustion Engineering does treat the water when it comes out at that point?

A. My understanding is they add some chemicals to the water. So the pH for the most part is raised because of the treatment that [is] given to it, but it [] still has very high sulfates, higher than would be expected in these streams. It also has high levels of dissolved metals. Some of the data indicated there was a rapid drop in the pH. There have been several spills reported when the treatment structure failed and there was a rapid depression of the pH which the acidic condition of the water would tend to kill whatever invaded that water under better conditions.

Q. What is the effect on the stream if the pH only drops some of the time?

A. It kills the organisms in the stream and it takes [] a while for them to come back.

Q. Do you have an opinion as to whether because of Combustion Engineering activity onto **[171]** their property the stream that crosses the [] Goldman and Britt property is polluted or not polluted?

A. I would say it is polluted. It has constituents that we would not expect to find in natural waters in that area.

**Tr. 175:8-177:25**

A. What we are seeing in the water quality is as a result of minerals from the mining activity to water oxygen. You might call it waste or tailings. The exposure of those that's what's affecting the quality from a chemical standpoint. From a sediment standpoint that's from the exposure of the soil just as you see construction sites eroding away if there is not proper practices taken. So those two things indicate that's a unique mining feature.

Q. You have described some dead trees on the McGill family property that you said could not be the result of a natural phenomena to kill the trees?

A. In my opinion it is not a natural phenomena to kill those trees. Those trees grew under conditions favorable to growth and something has changed in recent years to kill them.

Q. How soon? **[176]**

A. I would say probably within the last seven to ten years is probably when most of them have died.

Q. Could some be more recent?

A. My observation was it was continuing. At least when I was there a year ago at that site.

Q. What is your opinion as to what killed those trees?

A. A combination of the flooding from the channel becoming filled with sediment and then the high pH -- excuse me the low pH, the highly acidic water. You won't see plants growing in pH water of 3. You would not put a plant in a glass of lemon juice and expect it to grow. The same thing with trees.

Q. You mentioned the mine tailings?

A. When the rock is removed it is crushed to the exposed the minerals. There is a process by which the minerals they are interested in is removed then you have all this crushed rock left that looks like sand as a waste product this is usually washed away. They use water as a means of transporting that. What is left in the tailings ponds is the unwanted minerals and the exposed pyrite.

Q. Aren't you talking about [] something **[177]** that has been on that mountain long before the mining activity was started before?

A. There were minerals on the mountain before the mining activity started, but they were not exposed. This mountain was a big solid rock and the minerals were there and there were fractures here and there, but for the most part, from looking at the geological reports it was a massive rock-like structure with some bedrock fractures. But water seeping through the cracks there is not a lot of exposure of the pyrite and if it had been exposed it was exposed over eons of time and was carried away. But when you take the rock and crush it you expose all of these surfaces. Then you have all these surface[s] you have the exposure of all these minerals. That's put into the tailings pond and there is access to the oxygen and there is rainfall full and as the water moves out it causes oxygenation of the pyrite and perhaps some of the bacteria known to the work on minerals. You have oxygen in the atmosphere and it rains again it washes it out so you have a continuous supply, as the pyrite weathers, of sulfuric acid. So the process causes a stripping away of the other minerals, iron and manganese into the water as well.

**Tr. 178:15-179:14**

Q. These tailings ponds have pyrite in them?

A. Yes, and that produces the sulfuric acid. As the pyrite weathers it causes a chemical reaction for sulfuric acid and sulfide to be produced.

Q. Is that being produced today?
A. In my opinion it is because we are getting a continual supply of this acid into the streams which is keeping the pH low and sulfides are high.
Q. Does this open mine pit have any effect [179] on the water coming off the mountain?
A. This again [] directly exposes all the fractures and cracks in the rock [from] the blasting activity, the water that is in that pit can move directly into those [cracks] and oxygen can have an effect as that water moves into the rock and works its way through and eventually ends up in the streams it can carry with [it] the same contaminants.
Q. Are you [] talking about surface runoff?
A. No, this moves through the rocks the fractures and cracks, but there is water moving near the surface in the upper layers against the rock. So there is two sources the old tailings ponds and open pit sites.

**Tr. 180:3-25**
Q. Has the mine pit being left open affected the ground water?
A. Yes.
Q. Tell us how?
A. The movement of the water through the fissures and cracks in the bedrock[;] those are connected to the ground water system. That ground water system is connected to the streams.
Q. Could that have happened before they blasted the rock?
A. With the natural cover of soil and without the blasting you would not have this amount of exposure.
Let me go back. Under natural conditions you have a soil covering over this material. So when the water moves through there is no oxygen that is moving through there so you don't [have] the exposed surfaces of pyrite. So you would have a rather stable situation [if] it is not continuing exposure of new surfaces. When the mountain was opened up for the mine then you now have exposure. There is blasted rock lying on [the] bottom of the mine along with the water which leads to the fissures and streams.

**Tr. 181:19-182:15**
A. . . . The natural process of rainfall is for it to infiltrate into the soil and move slowly into the stream channels and into the deep rock and into the soil mantle. When there has been a disturbance and

rock has been exposed and most of the water is going to get into the stream quicker it is a flashier condition during **[182]** the rain storm. If the water rises it moves faster and it has a flashier condition.

Q. What effect does the flashiness of the mine site have on our folks creeks?

A. It would move sediment more sediment and move it further down stream.

Q. Do you get more erosion on the mountain creeks?

A. Yes and you also get more channel cutting by faster moving water.

Q. Are those things good for creeks?

A. They make them unstable and they are not conducive to maintain the biological integrity of the streams that would be expected under natural conditions.

**Tr. 185:2-13**

Q. Is that what the folks up in Pennsylvania mean when they refer to acid mine drainage?

A. Yes. They are measuring the pH. They are looking for the presence of deposits, what people call yellow dog, and these encrustations on the leaves and things along the stream channels those are evidence of the acid mine drainage.

Q. Did you see evidence of yellow dog in these streams?

A. Yes.

Q. Did you see encrustations?

A. Yes.

**Tr. 190:1-192:18**

Q. I want to hand you [a] notebook that's been introduced into the evidence as P-14. Turn to the section called chemical mass loading. Are you familiar with that page?

A. Yes.

Q. Tell us what you had to do with that page.

A. This is Ms. Gaskin's handwriting. She did the calculation, but we did the analysis of chemical constituents. We analyzed the measurements of stream flow, then we went through the calculation for six locations. The locations C-1, 2, 3, 4, and 5 and location R-1, which was a reference stream which was outside the impact area. We calculated a high range of what the metal load -- excuse me the pollutant load for the sulfates, aluminum, iron and manganese.

Q. Did you calculate what the chemical mass loading would be for the stream flowing on the McGill family estate, C-3?

A. Yes.

Q. What would be the mass loading for aluminum at that site?

A. The aluminum ranged from 3,200 pounds to 25 2,200 hundred pounds. **[191]**

Q. 3,200 do 2,200 that would be the range?

A. Yes. The reason for the wide ranged is based on the short period of time we took the flow measurements in the stream. The upper end of the range is based upon the stream flow using a computation from the water balance.

Q. Tell me how it was moving onto it?

A. What do you mean? I don't understand you .

Q. You told [me] the amount of aluminum coming onto site C-3 per year, where it was coming from?

A. The mining area.

Q. That['s] the amount of aluminum that moved over the water over the course of a year?

A. Yes.

Q. Do you have the poundage for the other streams you did the calculation for?

A. Yes.

Q. Did you do a calculation for the reference stream?

A. Yes.

Q. Those ranges are your opinion?

A. Yes. The range for the reference stream is a considerably smaller range from 40 pounds to 58 pounds a year compared to the 3,200 to 2,200 to at **[192]** location C-3.

Q. Do loadings of those sizes affect water quality if that condition goes untreated?

A. Yes. Generally in water quality we think in terms of concentrations. If we are looking at biological integrity of the stream it's the concentrations that affect the organisms. Whereas if you are trying to treat the water you need to know the concentrations and mass and how many pounds you have to deal with.

Q. Could you tell us whether or not in your opinion this situation on Graves Mountain is or is not a treatable condition?

A. Is it a treatable condition?

Q. Yes.

A. In my opinion these concentrations are within the range demonstrated to be treatable by a number of technologies. So it can be treated.

## CROSS-EXAMINATION OF DR. WADE NUTTER, PROFESSOR OF HYDROLOGY AT UNIV. OF GEORGIA, AND SCIENTIST WITH EARTH SYSTEMS, INC., BY DEFENDANT

**Tr. 250:7-14**

A. Prior to the mining activity there was water moving through the geological materials through the cracks and fissures that are imbedded rock. . . . Now you have, with the mining activity, you have the overlying soil, that protected layer, more or less has been removed. Now you have direct access to the cracks and fissures.

## CROSS-EXAMINATION OF JOHN BRETT, EXECUTIVE WITH COMBUSTION ENGINEERING, BY PLAINTIFFS

**Tr. 263:15-18**

A. I'm an executive for Asea Brown Boveri, Inc., Combustion Engineering, Inc. and Prospect Hill Management Corp.

**Tr. 264:22-25**

A. The headquarters of Combustion Engineering are in Connecticut and their general offices are [in] Chattanooga, Tennessee.

**Tr. 265:1-19**

Q. Combustion Engineering is a wholly owned subsidiary of another company?

A. Asea Brown Boveri Inc., is a subsidiary of [] ABB Asea Brown Boveri Limited of Zurich, Switzerland.

Q. Is ABB Asea Brown Boveri of Zurich a wholly owned subsidiary of another company?

MR. FRANKEL: I object as to relevance.

THE COURT: I will permit a factual background.

Q. Who owns ABB Asea Brown Boveri of Zurich?

A. That company is owned by Asea AB which is a Swedish company. It is owned one half by them and 50 percent by another

company Brown Boveri Limited which is a Swiss company and those two companies are publicly owned.

THE COURT: Shareholders own those companies?

A. Yes.

**Tr. 268:23-269:1**

A. What we are saying is water has been flowing off the mountain since the mining operation began in 1963 and nothing is different today than it was over the years and we never had any complaints.

**Tr. 288:8-10**

A. . . . [T]his is the first time our activities have ever been complained of in a legal proceeding by our neighbors.

**Tr. 291:3-12**

Q. Did you testify a few minutes ago this is the first time that anyone has asserted any claim about acid mine drainage into their creeks?

A. It is the first time any of these plaintiffs have.

Q. But others have?

A. There was another claim by Mr. Spires and Mr. Lively.

Q. Did you attend that trial?

A. Yes, I did.

**Tr. 295:12-296:7**

THE COURT: I was surprised by something you said, Mr. Brett. You said this lawsuit was the first time that the activity the Combustion Engineering has ever been challenged in a legal proceeding. Is that your recollection?

A. From these plaintiffs, Your Honor. There was the Spires and Lively matter which was litigation brought by Mr. Bell and Mr. Pannell. That case went to trial in 1991, and they were represented by Bell and Pannell.

THE COURT: I was familiar with that lawsuit and when you said this was the first time -- I don't recall whether you said challenged by these plaintiffs.

MR. FRANKEL: Your Honor, there was subsequent response in which he corrected his testimony in which Mr. Brett did state specifically as to these plaintiffs and Mr. Bell asked a follow up

question and Mr. Brett did testifies yes, there was another claim made by other parties and he named the other parties being Mr. Spires and Mr. Lively.

**Tr. 309:1-311:5**

Q. Can you the tell us what Combustion Engineering has done to prevent the material of the tailings pond from going onto the property of Mr. Maloof?

A. First of all we don't know all the sources of the water coming down on the north side of 378. It is possible that some of the water could be coming through the tailings pond. There are some natural springs that could be contributing to the flow that comes down there. We have considered the possibilities of putting in a piping system on the north side along 378 that would take the water and bring it around and channel it back into the treatment pond.

Q. But you haven't done anything like that to date?

A. We have had some discussions about it and we have developed some drawings and engineering.

Q. But you haven't moved any dirt?

A. No, we haven't started construction. Obviously we have to determine whether or not this plan would be acceptable to the EPD and whether it would work. Anything we do there we have to submit plans to the State of Georgia. So we would have to submit some plans. **[310]**

Q. Are you telling us that the State of Georgia has [n]ever done anything to prevent Combustion Engineering from stopping the release of acid mine drainage from the mine site onto other peoples property?

A. All I'm saying is anything we do on site we have to prepare engineering plans and they have to be approved by the State of Georgia before we do any construction. I think your last question was did we do any construction on the 378 side. What I said was no because we have to submit engineering plans to the State of Georgia in order to do any construction there.

Q. Are you telling us that the State of Georgia told you that you couldn't stop releasing acid mine drainage or low pH water onto the property of others?

A. I don't understand your question.

Q. Are you telling us that the State has prevented you from stopping this pollution of other peoples creeks?

A. My answer was in order to do any construction one has to file engineering plans with the state. And one cannot do things without filing those plans. So if you mean that we can't do a [311] thing without the State of Georgia's approval that's correct.

Q. Have you submitted any plans?

A. Not at this point. We have plans prepared, but we have not submitted them.

**Tr. 311:24-315:7**

Q. Does Combustion Engineering have anybody to monitor the site to see whether or not you are [312] releasing acid water from the site?

A. We have a consultant who oversees the release of water from the treatment pond and he takes water samples whenever he is releasing water from the treatment pond.

Q. Who is that?

A. Raymond Dotson.

Q. Does he take water samples at the point where the water comes out of the holding pond or does he take them from around the mine site?

A. He takes it at the treatment pond whenever he releases water or discharges water from that point down stream.

Q. Does he test it at any other places?

A. Not that I'm aware of. I don't know if he does or not.

Q. Does Combustion Engineering test the water that goes from the pyrite pond down to the McGill family property?

A. We have tested there.

Q. Who is in charge of that testing?

A. Various of the experts who have been retained by our lawyers have tested there and indicated results. That's the basis of what I told you before. I think it's around 3 at that point. [313]

Q. That's Dames and Moore, C H 2M Hill and Dr. Miller?

A. I'm not sure which ones. I can't say whose samples or when they took it, but that's my recollection that it has been sampled and we determined it is around 3.

Q. How long ago was that?

A. I think that was probably in 1990 or 1991 .

Q. Who for the Combustion Engineering is charged with [] monitoring the water coming from the leaking tailings property that goes down to the property of Jones and Richards?

A. That's further along.
Q. Yes. That's further south on the Loco Church Road. The leaking berm you said you know about?
A. That one along with the pyrite pond we submitted plans, engineering plans, to pick up the seeps at that point and channel them down to the treatment pond.
Q. Who is in charge of testing for Combustion Engineering, that was the question. Is there anybody?
A. We know what the pH is in that area. **[314]**
Q. What's that?
A. I think that's probably about 3 to 4, maybe more.
Q. Could it be less than 3?
A. It possibly could be.
Q. Is anybody in charge of testing the water that goes onto the Maloof, Johansen and Norman properties?
A. We don't have anyone specifically with the responsibility of testing water at that point.
Q. I want to hand you what is marked P-9.
A. Yes.
Q. Are you aware of testing being done by the State of Georgia on the water leaving the property?
A. I know that the EPD has visited the property and taken various tests at different times. I'm not aware of all of their testing.
Q. Does Combustion Engineering get copies of that testing?
A. If these are copies of those tests I don't recall having seen them.
Q. Do you know if anyone with Combustion Engineering or any agent for Combustion Engineering stays on top of what the state's test of the water **[315]** shows?
A. If we have someone on site at the time the state is visiting we would generally have that person accompany them and they would probably get some idea of what results they are getting at various points on our property, but I don't think we have anyone who does that specifically.

**Tr. 300:20-22**
Q. Dames and Moore did test reports several years ago, didn't they?
A. Yes, they did.

## EXAMINATION OF EDWIN PASCO, FORMER MINE ENGINEER FOR COMBUSTION CHEMICAL, BY PLAINTIFFS

**Tr. 321:21-322:13**

Q. When you took over as the plant manager in 1970, was the mine in full operation at that time?

A. Yes.

Q. By full operation I'm asking if it was operating 24 hours a day?

A. It was.

Q. That was three shifts a day?

A. Yes.

Q. Seven days a week?

A. It was.

Q. How long a period of time, starting prior to that, to your knowledge, had the plant been operating at full capacity?

A. Prior to 1975?

Q. Prior to the 1970 when you came on?

A. I was told that they had always operated in that fashion.

## EXAMINATION OF MARTHA LONG, ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS

**Tr. 324:7-9**

Q. How long has that land been in your family?

A. Four generations.

**Tr. 325:17-21**

Q. Can you tell us why you have kept the land?

A. Because my parents worked hard for it to give it to us and I have a daughter who is now 20 and I would like to pass it on to her.

**Tr. 328:21-22**

A. . . . Then there is the memories of the playing around it when I was a child.

**Tr. 329:2-3**

A. . . . I want to see it passed on to at least four more generations.

**EXAMINATION OF HERMAN DOTSON, JR., ENVIRONMENTAL CONSULTANT WORKING FOR DEFENDANT, BY PLAINTIFFS**

**Tr. 337:22-338:2**

Q. . . . when you measured the pH downstream of 3.05, did you notify any of the property owners downstream what had happened?

A. No. I notified the state, but I did not notify the property owners.

**Tr. 338:15-339:5**

Q. Who else, beside yourself, has any responsibility out there on the mountain as far as monitoring the discharge of water, that you know of?

A. As to the freshwater pond, as far as I know I'm the only one.

Q. Have you been ask to perform any other testing on any discharge from the Combustion Engineering property?

A. No.

Q. Whose responsibility is that?

A. That's Mr. Brett's I guess. I don't know. **[339]**

Q. And you yourself you have never been asked to test the pH of any of the water in any of the other streams that discharge off the Combustion Engineering property other than this holding pond?

A. No, I have not been asked to do that.

**EXAMINATION OF DAVID E. HUDSON, ATTORNEY WITH THE FIRM OF HULL, TOWILL, NORMAN & BARRETT, BY PLAINTIFFS**

**Tr. 351:21-352:21**

Q. Have you been able to reach an opinion as to what would be fair compensation for the fees and expenses involved in trying this lawsuit?

A. Yes, I have.

Q. What is that?

A. The total is $227,000 and I will give you the particulars on that if you like.

Q. Please do that.

A. 600 hours of attorney time. To hire lawyers of this caliber in the Augusta area the going rate is $150 an hour. That rate may vary from lawyer to lawyer, may be a little more or a little less, but in the

Augusta area that is the standard fee for lawyers of this caliber. So the 600 hours at $150 an hour the attorney's fees portion is $90,000.

Then I looked at the records concerning what you have spent for engineers, court reporters maps, surveys and those type expenses have totaled $137,000. So adding those sums together to hire these attorneys to try a case of this nature and to hire the expertise necessary to get this case to trial it is necessary to spend $227,000.

Q. Do you have an opinion as to whether or not those charges are out of line?

A. No, this has become a very complex case. . . .

## EXAMINATION OF PAUL HALL, FORMER EMPLOYEE OF COMBUSTION ENGINEERING, BY PLAINTIFFS

**Tr. 372:17-:373:10**

Q. If I could refer you to a map that we have referred to as 2-A. If you will reference yourself to that map. I want to refer you to the area up here, C-l, that runs off the property identified as the Maloof, Johansen and Norman property.

During the time you were in charge of the mountain do you know of any tests that were taken regarding water quality in this area on the stream **[373]** that flows down to the Maloof property?

A. No, sir, I don't remember anything going on like that because[ a]t the time we went up on the mountain, the perimeter was walked, and there was no water on the property there.

Q. My question was during the four years you were in charge of the mine site was there ever any testing, to your knowledge, in those years by Combustion Engineering?

A. I don't remember any.

**Tr. 374:1-20**

Q. Did you detect any water being discharged in this direction?

A. Every time I went there I would see water.

Q. Did you inspect this area at any time for a water discharge?

A. On the occasions when I walked in this area there was no discharge noted on those examinations.

Q. How often would you actually go to the mountain?

A. That varied. Sometimes I spent a week up there. Sometimes I was there once a week. Sometimes it was once a month. It

depended on the work that was going on and the amount of rainfall we had.

Q. Did Combustion Engineering have any employees, from '86 to '90, who were at the mine site on a daily basis?

A. No, sir.

## RE-EXAMINATION OF PAUL HALL, FORMER EMPLOYEE OF COMBUSTION ENGINEERING, BY PLAINTIFFS

**Tr. 391:9-392:7**

A. I never personally went onto their property and checked it. I saw it on Combustion Engineering property, but I never checked it on the property adjacent to the company property.

Q. Weren't you curious if it was going on the property of adjacent landowners?

A. Yes.

Q. Why didn't you check it?

A. I didn't go onto the other property for simply the reason that I didn't know of any problems on the other property.

Q. You saw it on Combustion Engineering's own property below 4.5, didn't you?

A. Yes.

Q. Why didn't you check to see if it was going onto the property of adjacent landowners?

A. I was taking the information I had [392] available to me and trying to do some remedial action to see [what] could be done about it.

Q. Did any part of your remediation efforts address whether or not there was acid mine drainage going onto the property of adjacent landowners?

A. No, I didn't have any information that that was happening.

## EXAMINATION OF JERRY MALOOF, ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS

**Tr. 400:25-401:8**

Q. When your daddy owned this land did your [401] daddy ever have any problems with Combustion Engineering?

A. Yes, he had numerous problems with them over the years.

Q. Did your daddy ever make any complaints to Combustion Engineering?

A. He would call Mr. Pasco from time to time, especially during the 1970's.

**Tr. 403:7-405:16**

A. At times [the creek] has a bad smell to it. There is an orange yellow crustation building up on the bottom and on the edges where the water runs. I'm told that is iron. In fact, it has built up to the point that the creek will actually take another direction. And it has a soft looking fiber that's growing on the bottom that looks kinda like cotton. If you got a cut place on your hand and if you stick it in that water it will actually burn.

Q. What do you mean by a bad smell?

A. It smells something like a rotten egg. If you ever smelled a battery when it's undercharged it's something like that. Some sort of an acid type smell.

Q. Do the cows drink out of this creek?

A. Sometimes they will. That's been a problem in past few years because I do have a freshwater pond on another part of the property and they will actually break out to go back over there **[404]** to drink.

For years we couldn't figure out why they were doing that until we started to find out what was actually in the water. They changed their pattern. Right after three, four or five days of rain they will break out. They won't stay on the 378 side because the cows are totally dependent on the creek for water. I don't have a freshwater pond or well water for them to drink from on that side so they will break out.

Q. Does that creek water always have a bad smell to it?

A. It will linger there, but it seems worse right after a rain. Maybe two or three days after a rain it will smell real strong and then it will kinda taper off.

Q. Does this cause you any concern?

A. Yeah, because recently I was talking to Claude Terry and he said –

MR. FRANKEL: I would object to anything that Dr. Terry said to this witness.

THE COURT: Yes. We don't want you to repeat somebody else's testimony?

A. I recently found out there is a high aluminum content in the water. There is no way I'd **[405]** drink the water myself. I don't know what I'm going to do with my cattle. I hate to make them drink water that has enough acid in it to burn your hands and has that smell to it.

What the long-term effect to them is, I don't know. I don't know what it's doing to them.

Q. What had you planned to do with your land?

A. I have got a guy on the property, a good friend of mine and a distant cousin. I've been letting him keep his cattle in the pasture. It's his responsibility to keep it mowed and keep the fences repaired and when I come back I want to take the property over and keep cattle on it, but I want him to keep cattle on it now because if you don't it's too hard to bring back your land.

## CROSS-EXAMINATION OF JERRY MALOOF, ONE OF THE PLAINTIFF LANDOWNERS, BY DEFENDANT

**Tr. 413:22-23**

A. . . . I think you could say there has always been problems since the mining operation started.

**Tr. 414:3-19**

Q. . . . Since 1970, even though you know your daddy had complained prior to then; is that right?

A. I'm not going to say when I [] first became aware of anything. I know he was complaining in the early '70's.

Q. At that time would you describe what you understood the problems to be, in the early 1970's?

A. We used to get a massive amount of tailings that washed over onto our property. They used to wash the tailings on the north side of the mountain and the tailings ponds would break and tailings would come down and completely cover our property and it has, in fact, killed a swath of trees about a hundred feet wide and several hundred feet long in the past 10 years, the past 10 or 15 years, and they have just started coming back.

**Tr. 419:12-420:22**

Q. The testimony you gave in January of 1992 was it the truth?

A. It sure is.

Q. On direct examination you were asked some questions about complaining to Combustion Engineering, about all of the problems with the creek. I believe you answered the question. "We complained many, many times to Mr. Pasco."

A. I was speaking of my father. I was only a kid. I was only a teenager. I remember many times that he did complain to Mr. Pasco.

Q. If you would turn to page 20 of the transcript of your deposition which was taken in January of 1992, and calling your attention to line [420] number 6. The question at that time was. "Did y'all ever speak with anyone with Combustion Engineering about that?" And you answer was. "I didn't." The next question. "Do you know if your father did?" And your answer was. "To my knowledge I don't think he did." Was your answer that you gave at that time, in January of 1992, the truth, Mr. Maloof?

A. It probably is. It's not worded like I really would have said it because I know Mr. Pasco would testify that my dad did call Mr. Pasco. I know he did send a bulldozer down there in the '70's to do some clean up and that's all in the record.

Q. Now, you're saying that Mr. Pasco was called and the company sent a bulldozer down there and did some clean up work. They cleaned up the sand and silt and spent about a month on your property, didn't they?

A. I don't recall how long they stayed there. I do recall they couldn't get up the sand and silt because the bulldozer would get stuck, but they came down there and did enough to pacify daddy to get him to stay home and shut up.

**Tr. 421:24-422:1**

A. Nobody ever drank water from the stream? I did. As a kid I used to drink out of it all the time.

## RE-EXAMINATION OF JERRY MALOOF, ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS

**Tr. 423:13-21**

A. [The creek is] full of this stuff this orangish red iron crustation. I'm told it has changed its direction many times. It's full of silt and has got enough sulfuric acid in it I don't know what I'm going to do about the cattle. I'm going to have to do something soon

about it. there is now minnows anymore and there is nothing in it. The moss stops about a foot short of the stream. It's just got a foul smell to it. . . .

### CROSS-EXAMINATION OF CLARENCE NORMAN, ONE OF THE PLAINTIFF LANDOWNERS, BY DEFENDANT

**Tr. 432:24**

Q. [The creek branch] doesn't affect your home place?

A. No, but it does affect the cows.

### EXAMINATION OF RAYMOND HUGHES, ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS

**Tr. 442:9-13**

Q. Tell us how [the condition of the water on your land concerns you]?

A. It could kill off what few trees are left and the fish probably won't come back in there. I have an 18 month old grandson that I would like to teach how to fish and all.

### RE-EXAMINATION OF RAYMOND HUGHES, ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS

**Tr. 448:14-17**

Q. Can you tell us the effect the pollution has had on your personal enjoyment of this property?

A. It just kept me from fishing when I got the chance to go.

### EXAMINATION OF OLEETA BRITT, ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS

**Tr. 454:15-17**

A. We plan to keep the property. It has a meaning to me. My mother inherited it and we intend for it to go down to my daughter.

**EXAMINATION OF MILDRED GOODMAN, ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS**

**Tr. 468:12-21**

Q. Why does it bother you that you have a stream with a problem like this?

A. I would like it to be clear. I would like the water to be clear going through there. God knows I might come up here and want to go fishing. I don't know if I would ever be able to do that or not, but I do love the outdoors. The stream is beautiful and the land is pretty. There is a deep gully down in there on the property that's very enticing. I would like it cleared up.

**RE-EXAMINATION OF MILDRED GOODMAN, ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS**

**Tr. 474:6-22**

Q. I would like to ask you if you were ever informed by Combustion Engineering that they released 12 million gallons of water through your stream in the last two years on one occasion when their dam broke?

A. No, I never heard that. I was never contacted by them about anything and I wonder why. The records are at the courthouse. Everybody knows who owns that property. Oleeta and I have had letters from timbermen and real estate people in all areas wanting it. So they could get access to our names and our addresses and that we own the property. There was never, at any time, any indication that something had gone wrong and I couldn't complain about it because I didn't know about it. I was never informed and I would have appreciated it had I been.

**EXAMINATION OF BERNARD DANNER, ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS**

**Tr. 478:10-17**

A. Today the water still runs in that creek, but you have the results of the silt or whatever has been coming down the mountain. You have on the bottom a reddish brown deposit. The silt backs it up

into pools and there is a pretty large accumulation, in some spots, of a reddish silt-like material. It is a reddish brownish deposit. . . .

**Tr. 479:17-480:11**

Q. What was [the creek] like when you were a boy?

A. I fished in there. We swam there. We would dam it up and I made fishing holes. It was filled with catfish and all types of minnows, horny heads, red horses.

Q. What's a horny head?

A. It's a minnow, a big one. I guess about 5 or 6 inches long. On the head there is 5 or 6 little sharp pointed horns. There were some little **[480]** red bellies in there and then just regular minnows. There was all types of minnows, suckers and bottom fish that fed off the bottom.

We have a pond which is uphill, toward the higher ground from the creek it has an overflow area that runs down toward the creek. When we would have overflows in the pond a lot of fish in the pond would get into that overflow area and eventually end up in the creek. So the creek became stocked with bream and blue gill from the runoffs at the pond. So at one time there were a lot of fish in there.

**Tr. 480:21-22**

A. I would not let [my children] get in that creek at any time.

**Tr. 481:12-16**

Q. Has Combustion Engineering told you whether they might be putting anything in that creek?

A. No, I have never been informed of any such thing.

**Tr. 482:1-12**

Q. Why does the condition of the water in that creek matter to you []?

A. It matters to the point that number one I would like to see the creek back as it once was. I would like to see my children enjoy their heritage through the generations on the land and property as well as the stream and enjoy the recreation of it. I would like the peace of mind to know that I have the freedom to own my property without somebody else taking advantage of it without my knowledge or permission and using it for their own selves and to my detriment.

**Tr. 484:2-485:3**

Q. Did you hear the testimony about the release of 12 million gallons of water from the mine site last June?

A. Yes.

Q. Did you know about that when it happened?

A. No.

Q. Did anybody from Combustion Engineering call you and tell you about that?

A. No.

Q. How about last November, were [you] told about a large release of acidic water at that time?

A. I had no knowledge of any of that until I recently heard of it.

Q. Have you given any permission related to those releases?

A. No permission whatsoever.

Q. Now, the water back -- going back to the Danner 2 tract, where you live now, have you ever drunk water from that creek?

A. We used to drink from it all the time. If you went fishing and got thirsty you took a drink out of the creek. If you were out hunting that was your drinking water. It was as clear as a bell. I had no hesitation about drinking from it. I drank **[485]** out of it many, many times years and years ago.

Q. Do you drink from it now?

A. I would not touch it now, no, sir.

**EXAMINATION OF LAWRENCE PEELER, ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS**

**Tr. 499:4-12**

Q. Do you use the stream for any suitable purpose?

A. Well, the last four years I haven't had any cows back there. I used to have cows back there. But prior to [] that time the cows wouldn't drink the water. They'd go down there and smell of it and go back out from over there and back toward the house so they could get some water. They wouldn't drink the water.

**Tr. 501:23-502:1**

Q. What was the condition of the stream before these problems occurred?

A. It was full of fish, frogs and they killed everything in it....

**Tr. 502:15-18**

A. . . . I want to keep [the stream] clean to have it for later years to use it down through the years with my children and grandchildren so they could use it.

**EXAMINATION OF JAMES WALLEN, INVESTIGATOR FOR GEORGIA DEPT. OF NATURAL RESOURCES, BY PLAINTIFFS**

**Tr. 514:1-3**

A. [The foam in the creek] was kind of a brownish looking foam. I have seen foam from two inches high all the way up to two or three feet high. . . .

**Tr. 516:6-13**

A. . . . Right along in here there is [a] big berm here that comes out of the tailings pond. For years and years the berm leaked. There was an elderly lady that lived in this house and she complained to me about it. I went up there and the water was seeping out of the dam and coming across the road. I went up on the mountain and I spoke with Mr. Pasco about it.

**Tr. 517:12-13**

Q. What is the situation there now?

A. The water still runs down through there.

**EXAMINATION OF RALEIGH LONG, JR., SON OF ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS**

**Tr. 535:21-536:7**

A. . . . They said they couldn't fix [the leak] because of the amount of water in the pond so I said at least put a sump pump up there to catch the water coming out and pump it back over the dam and they did it.

Q. Do you know when that was?

A. Back in '77.

Q. Do you know if that pump is still there?

A. Not to my knowledge.

Q. Do you know if that leak is still there?

A. It's continuing. The leak is still there because they never did anything else to it, to my knowledge.

**Tr. 538:17- 539:17**

A. This is a letter from Lawrence Peeler this was back on June 25th, 1986, when he wrote this letter to me.

Q. What were his complaints to you at that time?

A. Fish were dying in his creek.

Q. To whom did you convey that complaint?

A. I carried it to the EPD.

Q. Did you tell anybody at the mining [539] company about it?

A. I talked to Mr. Pasco.

Q. Did you ever have any other occasion to talk to Mr. Pasco about any problems with the creeks?

A. I talked to him numerous times.

Q. Have you had occasion to talk to anybody else at Combustion Engineering since the mine has been shut down?

A. No more than to their attorneys.

Q. When was that?

A. Two years ago, I think.

Q. Could you tell us if you have seen any response to your complaints?

A. They have been up there and smoothed up the roads, planted some grass, that's as far as I have seen.

**EXAMINATION OF ROMMIE BECKUM, ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS**

**Tr. 553:21-554:2**

A. When I had cattle on there I rented some land from Mr. Peeler so they could go on his land to go to his pond and drink.

Q. Why couldn't they drink out of your stream? [554]

A. They didn't want it. It didn't smell right to them. It was muddy.

EXAMINATION OF JEFFREY CARTLEDGE, FORMER EMPLOYEE OF COMBUSTION ENGINEERING, BY PLAINTIFFS

**Tr. 566:9-16**

Q. You said the water was used in the mining process. How was the water used in the mining process on Graves Mountain?

A. All the ore that was brought into the plant, after being crushed, it was ground to a certain size and went through a process where we removed the dirt and minerals through stages to produce the kyanite we were mining at the time.

**Tr. 566:21-567:17**

A. The pond to the right we called the freshwater pond. We pumped the water from that pond through a pipe line system around the side of the mountain to the processing plant. Once we finished with it there was a gravity flow line to take it [567] back to the tailings pond. Which is the big one you see right there. There were some others that were built before I came there, but the last one that was built was the big one that you see there.

Q. Show the jury on here where the water would empty into the tailings pond?

A. This was the freshwater pond and the water was pumped around this way to the plant site, which was somewhere in here. This picture was taken since the plant was taken down. The water was discharged at several points here and here, depending on the weather. If it was real dry weather sometimes we short circuited it to go to this point so we didn't water the whole area. In the winter we discharged here and here and that's where the sand would go down here, the sand, lime and clay and so forth. . . .

EXAMINATION OF WILLIAM JONES, ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS

**Tr. 576:23-25**

A. . . . Now, I could rent the land to a fellow who wants to put some cows on there, but it doesn't have any water on it that the cows will drink.

**Tr. 577:9-12**

A. . . . After a big rain there is [a] smell that smells like a battery that's overcharged. The cows won't drink it. To my knowledge there is not any fish or anything in that water.

**Tr. 578:12-13**

A. I would say [the foam] has a brownish yellow color. It would foam up like real soapy water.

**Tr. 580:14-15**

A. The only thing I used [the stream] for was the cattle to drink from and they didn't drink it.

**EXAMINATION OF WALTER C. MCGILL, ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS**

**Tr. 588:2-5**

A. . . . In my younger days we used to maintain the spring that's there at the edge of the property and that's where everybody got their water and we had picnics and all of that there.

**Tr. 588:16-25**

Q. Did you drink any water from it?

A. Many times.

Q. What did it taste like?

A. It was good water.

Q. Was there anything different or unusual about it?

A. No, it was [] good water. As good as you could find anywhere.

Q. Where is that spring now?

A. Probably under about six foot of mud.

**Tr. 592:13-24**

Q. Has what you described as happening to the creek has it hurt you in the last six years?

A. Yes, it's hurting the trees. The trees are still dying.

Q. Does that cause you any concern?

A. Yes.

Q. What kind of concern does it cause you?

A. When I was a young boy growing up that was a nice stream. That was as beautiful a piece of property as there was in the county other than up on the mountain. We all enjoyed the property and we hope to enjoy it again. . . .

**Tr. 596:3-4**

A. At one time we was using [the creek] for water. The children used it for fishing and so forth.

**Tr. 598:8-9**

A. [The creek] causes me concern because you can't fish there anymore.

## CROSS-EXAMINATION OF WALTER C. MCGILL, ONE OF THE PLAINTIFF LANDOWNERS, BY DEFENDANT

**Tr. 606:13-17**

Q. Show me on these pictures where this ten to 12 acres of dead trees is located?

A. In this property right here. You go in there and they are all dead. If you go up there you'll see dead trees.

## COLLOQUY BETWEEN COUNSEL AND COURT

**Tr. 622:10–623:7**

MR. FRANKEL. Your Honor, we would object to Mr. Garret's testimony. As I understand his testimony he is going to testify as to the fair market value of the plaintiffs['] property without even giving a date as to when that opinion is given, number one.

Number two: Given the election that has been made in this case the only time that I know that this type of evidence, if the evidence were sufficient, couldcome in would be in the event that permanent damage to property has been proven. Therefore, the diminution of market value, pursuant to your order, over the last four years, is not relevant.

There is no testimony by Mr. Garrett as to the value of the property four years ago. The testimony that is about to be introduced does not give a date as to when that fair market value was determined.

Furthermore, the issue of fair market value is irrelevant to this case. You cannot recover the fair market value in this case. It is not an element of damage in this case any longer.

**Tr. 631:18–632:12**

THE COURT: I will note Mr. Frankel's objection and because of that objection I will state in the trial proceeding, or on any other on basis, that because of the objection on behalf Combustion Engineering that party or any successor in interest will not be heard, within the confines of this lawsuit, ever to complain that there has been a failure or an absence of any showing of fair market value or any disparity [632] between the present polluted and non-polluted fair market value. I don't see a need to show it and we will proceed on the general damages aspects and put to the jury the peaceful enjoyment of one's property that both you and I believe to be the most correct.

So I will not admit the deposition on that objection and on the basis of this colloquy between counsel.

Do you understand what I mean Mr. Frankel? If you object you can't come back and say you didn't prove fair market value.

MR. FRANKEL: I understand, your Honor.

**Tr. 659:21–660:9**

THE COURT: One other thing while we are at this lengthy stopping point.

Mr. Frankel, you objected to Mr. Garrett's testimony and I kept looking at the part of my order concerning the cost of treatment of the alleged injury to the extent such exceeds the dimunition in the value of the said properties it is inadmissible. As far as I know the dimunition in value, the only evidence relating to it, is through Mr. Garrett's testimony and I don't want to have any misunderstanding about this. I don't want to hear again that they didn't offer proof of the dimunition of value.

MR. FRANKEL: I understand, your honor.

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## EXAMINATION OF RALEIGH LONG, SR., ONE OF THE PLAINTIFF LANDOWNERS, BY PLAINTIFFS

**Tr. 644:9-13**

Q. Do your cattle drink the water from this main stream?
A. No, sir.
Q. Did they ever?
A. They used to.

**Tr. 645:2-14**

A. We used to [] set hooks and catch a lot of fish. We used [the creek] for a lot of different reasons for recreation, swimming.
Q. Did you ever swim in it?
A. Yes.
Q. Did Raleigh Jr., swim in it when he was young?
A. Yes.
Q. Do you have any grandchildren?
A. Yes
Q. Do they swim in it?
A. Yes, they swim when they can get permission.

**Tr. 645:21-22**

A. [The creek] is deteriorated. It's harmful for them to swim in it.

**Tr. 646:3-6**

A. In the [last six] years I haven't fished there. We go to the lake to do most of our fishing which is directly south of my farm. There is no fish in the water.

**Tr. 647:7-13**

Q. Can you tell us about any notices that you have ever received from [Combustion Engineering]?
A. I have never received any notices.
Q. Have you ever received any information about any spills or any releases of large amounts of water into that creek?
A. No, sir.

**Tr. 648:15-22**

Q. Have you ever seen any foam out there on that creek?

A. Yes.

Q. Tell us what it looks like?

A. A blanket of suds that collects in the stream that comes from a sudden rain or a sudden flow of water. It collects on the logs, rocks in the creek.

## CROSS-EXAMINATION OF RALEIGH LONG SR., ONE OF THE PLAINTIFF LANDOWNERS, BY DEFENDANT

**Tr. 650:14-17**

Q. In your words right after that mining operation began your stream was killed, it went dead, is that fair to say?

A. Yes.

## EXAMINATION OF DR. CLAUDE TERRY, CONSULTANT WITH AND PRESIDENT OF ETA ENVIRONMENTAL, BY PLAINTIFFS

**Tr. 686:6-687:17**

Q. What should be done with an expose ore body and tailings ponds once the mining activity is ceased in order to prevent acid mine drainage from occurring in the future?

A. Do I have an opinion about what should be done?

Q. Yes, sir.

A. Yes, sir.

Q. What is that opinion?

A. That opinion is pretty complicated depending on the situation that you find the pyrite body in or whatever the acidizing body is. The first thing you want to do is to cut off the oxygen.

Q. Why?

A. Because the continuing chemical process depends on the oxidizing of the pyrite. Along with that there are high concentrations of iron, aluminum and manganese which are present. These three protonic elements add to the problem. Your sulfur thereby becomes oxidized to sulfate and that process **[687]** to the system and it's continuing to digest the pyrite. So the reaction is on-going and that on-going reaction is spreading.

BEST AVA

Q. You said you have to cut off the oxygen. How do you go about cutting off the oxygen exposure?

A. When you are dealing with an area such as the tailings ponds that are present on Graves Mountain you have to do a recovery in each area and that hasn't been done. You have to cover the areas of the tailing ponds to stop the chemical reaction with the pyrite. You have to bind the pyrite and seal it off so that the air cannot get to it.

Q. Can you cover it with water?

A. If you cover it with deep enough water, but with water you will get oxygen in it so you may have to dump something in it to reduce the oxygen that is present.

**Tr. 695:23-697:14**

Q. Based on your visits to the area, just your visual inspection of the site, do you have an opinion as to whether or not acid mining drainage is leaving the Combustion Engineering property and going onto streams that go onto the watershed that is identified as crossing the Maloof, Johansen and Norman properties?

A. Yes.

Q. What is that opinion?

A. It is.

Q. Just on the basis of walking the property and the hours you have spent in visual observation do you have an opinion as to whether acid mine drainage in draining onto the property known as Peeler 2, the Beckum, Peeler and Danner land and McGill 2?

A. Yes, sir.

Q. Based on your walking the streams and the hours you have spent in visual observation do you have an opinion as to whether acid mine drainage is leaving the Combustion Engineering property and going into the water watershed that enters the Jones and Richard's property and onto [the] watershed of the Raleigh Long Property?

A. Yes.

Q. What is that opinion?

A. It is.

Q. Do you have an opinion as to whether acid mine drainage is flowing from the defendant's property down on the Goldman-Britt property and into the Danner land?

A. Yes, I have an opinion.

Q. What is that opinion?

A. Intermittently such materials are flowing onto it.

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Q. How regularly is it flowing, just based on your visual observation, onto the other properties?

A. It's constant as long as the stream is flowing. Some of these streams don't always run, but when they are running they are, in fact, receiving acid mine drainage.

**Tr. 712:15-23**

Q. Dr. Terry, I want to direct your attention to this area of the mountain up here as it goes onto the Maloof property and down onto the Johansen and Norman property. During the time you have been walking the stream in that area have you noticed any activity or anything being done with the water by anyone in order to stop the acid mine drainage from flowing down onto that property?

A. No, sir.

**Tr. 714:9-717:11**

A. My opinion is that it can be treated, but in order to treat the material coming down the mountain, the pH in that stream is typically about 2.8 which is extremely acidic, the aluminum will run 40 parts per million, manganese 20 parts per million. The iron will be in that same neighborhood. So those elements are elevated about 20 times above the toxic level from those metals and the stream is extremely acidic. Since it continues to flow into the stream there the water needs to be treated at the top of the watershed.

The first thing you need do is to stop the pH from going so low so that it's clouding the water and carrying the foam and minerals. You have to disrupt the water so is does not become so acidic.

Q. What would you do on the mountain itself **[715]** to raise the pH?

A. Certainly you would add lime, which is a material that is commonly used in this type treatment. It could be interposed into the stream before it goes off the land to raise the pH. There are limestone ditches that could be run to collect the acid mine drainage in an attempt to get the acid level down so that iron will fall and the aluminum will come out and the manganese, if you can get it high enough. Usually you can get the alkaline level high enough to get the manganese out.

Q. What action would you take in the area before the stream goes onto the Johansen and Maloof and Norman property?

A. I could not tell you without looking at the causative factors.

Someone would have to look at the origin.

Q. Are there things that could be done to raise the pH or greatly improve it in that area?

A. Yes, sir.

Q. What are those types of things that could be done?

A There can be the addition of soda ash or sodium hydroxide and ammonia can be added to the limestone. Wetlands can sometimes be constructed **[716]** and --

Q. How could wetlands be used in that area?

MR. FRANKEL: Your Honor, I want to make sure my objection will go to any issue dealing with wetlands in the case. I don't want to be disruptive, but I want the record to show that my objection goes to the issue of wetlands. I'm not sure if it falls within the same remediation that he was asked about in the original question.

THE COURT: Thank you and your objection is so noted.

A. Based on some of the studies that have been done on mines sites they say that a stream like the one at C-1 is extremely difficult to treat with wetlands alone and you would probably still have to have some chemical treatment of some sort. You have to add some caustic chemicals ammonia and add some lime to reach an acceptable water quality criteria.

The problem is the stream is so bad that anything that is an improvement would be desirable because of the dilution factor the water downstream could recover quicker. The minerals in the stream are derived from the oxygenation of the pyrite so you could cut off the oxygenation to the pyrite pond. If the material is intermixed, the **[717]** pyrite is mixed through the tailing ponds that lay above here then it is difficult to treat the origin of the water. You have to treat the water passage on the site.

Q. Could you do anything with tailings in the wetland themselves?

A. In an effort to see if the wetland could be used I set up an experimental reacter which gives us some small remediation of the stream. So something could be done based on that experiment, but I can't tell you the exact size that is needed.

**Tr. 717:20-23**

A. Most states give you 18 months to reclaim and they expect your reclamation to be on-going to go on forever and that it is not going to decline again.

Tr. 718:14-726:11

A. But as to the stream itself, as it exists on the property, I have seen nothing being done.

Q. Let's move to this area down here on the McGill property called C-3. Are you familiar with that property?

A. Yes.

Q. Do you have an opinion as to whether or not any remedial action can be taken in this area to stop the acid mine drainage from flowing onto the McGill family property?

A. This is an extremely bad stream as it [719] exists on property 2.

Q. Do you have an opinion?

A. Yes, I have an opinion.

Q. What is that opinion?

A. There is a considerable amount of land between what they call the pyrite pond and where the stream originates and the McGill property. There is enough room there for various types of activity to take place on the property to prevent the stream from entering the McGill property in the condition that it does.

Q. Are there actions that could be done to provide a permanent solution?

A. Not unless you do something to disrupt the flow. Trying to do some sort of water treatment in that area that would be extremely difficult. A wetland again, according to some studies, are designed to last ten years and you can fully expect 20 years out of them, but as problems develop you have to deal with them and then try to remediate the area.

Q. Could you raise the quality of the water in that area with a wetland.

A. Yes.

Q. Would that be something that could be [720] done?

A. It could be done with the construction of limestone drains and wetlands that could last 20 years.

Q. Have you seen in anything in the area of your examination of the property indicating that the construction of a wetland would actually address those problems?

A. Those two streams are two of the most difficult streams I have ever seen. They would be extremely difficult to reclaim.

Q. Have you seen anything in the whole area during your investigation that would suggest that a wetland would address the

problems with the acid mine drainage?

A. I have seen two examples indicating that it would address the problem. I have seen the wetland on the property at station C-S which I have walked this stream --

Q. Could you show us that area on the map here?

A. The pH of the water going into that area was little less than 3. It came out of a leak along the side of [the] tailings pond and from there to close to an acre away where the water was coming up in the [721] middle of a pine forest the water flowing there had a pH of 3.

Mr. Steel and I then walked down this stream and the stream poured into a small swamp. In that small swamp there is small dilution and the water coming out of the swamp had a pH of 4. So it went from a pH of 3 to 4 almost it increased a full pH level. So that shows that something could be done to raise the pH. Not to the point of raising it to the level of the EPA water quality standard, but at least it is better than it is now.

Also on June 10th we went to look at Mr. Jones' property. That property has a small stream on it that is, apparently, unaffected by the acid mine drainage and we found a beaver dam at that juncture. There was also a beaver dam below this beaver dam and the iron was falling out in the stream and precipitating at a very high rate. So that the water at the bottom of the second beaver [dam] was covered with a bright red color which is iron hydroxide. We continued down that stream to its juncture with the Richard's property and the entire stream was under the beaver dam and the pH here at the chicken houses that day was in the high 3's or around 4 at the beaver dam. [722]

Coming out the back side of the beaver dam it was a four and at the edge of the Richard's property the pH there was 5. And at the Lively tract for the first time the water in that stream looked like what you would normally expect to find in streams in that area.

So that suggests again -- and I'm sure the Jones or Richard's don't care to have their property become a beaver dam treatment area for the pollution.

THE COURT: Let's don't have any subjective reaction?

A. What I'm getting at is I feel sure those [] gentlemen will go in there with a backhoe to pull those beaver dams out, but it does serve to create a wetland situation.

THE COURT: We have got enough in this case without having to worry about beaver dams and backhoes.

Q. Dr. Terry, in your opinion could a wetland take care of the acid mine drainage that flows onto the Jones and Richard's property?

A. I would say on these properties they appear to [be] doing that inside these ponds.

Q. In your opinion could a wetland be [723] constructed on the Combustion Engineering property as the stream enters onto the Jones property?

A. With the water volume dilution factor I would doubt that it would meet the state or federal water quality standard, but I think something could be done to raise the pH to 4.5.

Q. You have to look at area available?

A. Probably so.

Q. Have you looked at the area available?

A. On the CE site?

Q. Yes.

A. Not per se. I have looked at it for a wetland site. You could get one unit probably in there. If you can get one above and below I can't say.

Q. This final area is the water flowing from the holding pond. Is there anything that can be done there to lessen the problems created by the discharge of that water?

A. Since part of the problem, historically has been the shock loading of a vast amount of water coming down and water going on and off the property a secondary pond would be useful. Certainly a wetland would be desirable. If the pH is no longer a problem you can probably get rid of most of [724] remaining metals.

Q. What metals are in there?

A. I don't remember the exact metals that are there. You have the map. I can tell you the only metals that we tested for was iron and aluminum. Again you could probably reduce those levels with a wetland which would certainly make it easier to maintain the pH at a proper level. At an essentially neutral level most of the time.

Q. Could you do anything up in that area with the holding pond other than dump chemicals in it?

A. I think you probably could. Again you have to the look at the volume of water and do measured chemicals dosing that is the only way to handle the volumes they have. Certainly there is huge area here that's available and it is not functioning for water storage or anything else.

Q. Going back to the area over here you mentioned there is a leak in the berm?

A. Yes, this berm that runs along the Loco Church Road has a leak in it and the water is running down to the road ditch.

Q. Have you checked the pH of that water?

A. The low we have is 2.5 to around 3, but [725] the volume is also very low.

Q. When was the last time you observed that area?

A. Around June 10th. On June 10th when I went by there, this was during a dry period, there was no water going into the ditch. About four days later I went by there and the water was flowing again. I had hoped that the seep had been cured.

Q. Has the seep been cured or is that leak still present in the berm?

A. The last time I was there water was still going down into the ditch.

Q. Have you seen anything in that area, in the walking of it, observing the area as you have, that would show evidence of and that has been taken in that area to [] address the acid mine drainage flowing down into the Jones property?

A. Which area are you referring to now? Can you show me?

Q. Up in this area?

A. No, I haven't seen anything being done to address that problem.

Q. Have you seen anything being done to address the acid mine drainage that is occurring on the McGill property? [726]

A. The pyrite pond, as understand it, was capped with some sort of material and a ditch was constructed along there with a limestone berm, but immediately after the construction of the berm, or after I first viewed it, there was a large rainfall event the water went around those structures and for next year they weren't replaced or changed. That has not been corrected and the ditch runs against the side of the hill rather than down the slope. But I haven't seen anything being done to change the nature of the water, no.

**Tr. 734:19-736:20**

A. Reclamation is the idea of doing a longterm repair of an area. Remediation is taking care of an immediate problem. To give you an example you would remediate a toxic discharge.

Q. Do you have an opinion, Dr. Terry, as to whether there are any remediation techniques which could have been applied, since 1988, to improve the [735] problems with acid mine drainage at Graves Mountain?

Q. What is that opinion?

A. I think there are a couple of techniques that could have been applied to the streams.

Q. Could you give us some examples?

A. If we look at C-4, which is on the mine site itself, which keeps overflowing and the water is discharged, even though there has been some chemicals treatment the pH of the water that is discharged is below an acceptable level. Apparently as it is discharged it runs over the property and the water comes down into this creek. If they built a surge pond below the treatment pond and lined it with a concrete or steel basin so when the pond fills up the overflow would drain into that basin drain. That is certainly one engineering solution to that problem.

Q. Are there any remediation techniques that could be applied to the two streams that come off from the pyrite pond and onto site C-3 on Mr. Maloof's property and C-1, that goes onto the McGill property?

A. Any treatment is going to involve getting [736] dissolved oxygen level in the water down. One way to do that would be with hay bales and alternate the hay bales with layers of chicken manure and limestone and let the water seep through. That will stop some of the bacteria from growing and keep the iron from precipitating and the pH will go up. It may still not meet the water quality standard, but it will greatly improve the water quality.

Q. Are there any other remediation techniques that could be applied to the tailings Ponds?

A. If you put in a wetlands area you might have water that meets the quality standard by the time it gets to the plaintiffs property.

Q. Could the things that you have described, could those be put in place today?

A. Yes.

Q. Are those things simple or complicated?

A. Chicken manure and hay is a pretty simple remedy, yes.

**Tr. 737:2-7**

Q. Dr. Terry, do you have an opinion as to whether or not Combustion Engineering has followed their reclamation plan?

A. Yes, I do.

Q. What is that opinion?

A. I don't think they have.

**Tr. 737:15-22**

Q. Dr. Terry, do you have an opinion as to whether or not it was known in the mining community in the 1970's, that reclamation techniques were available to prevent the acid mine drainage problems you see at Graves Mountain today?

A. Yes, sir, I do.

Q. What is that opinion?

A. Techniques were available.

**CROSS-EXAMINATION OF DR. CLAUDE TERRY, CONSULTANT WITH AND PRESIDENT OF ETA ENVIRONMENTAL, BY DEFENDANT**

**Tr. 748:6-9**

Q. Weren't all of those things done up on Graves Mountain by Combustion Engineering?

A. In varying degrees and in trivial amounts.

**CROSS-EXAMINATION OF DR. THOMAS SIMPSON, SENIOR ENVIRONMENTAL SCIENTIST WITH CH 2M HILL, BY PLAINTIFFS**

**Tr. 874:23-879:1**

Q. On station 20 that you referred to as a background stream, do you have a copy of your testing data with you? **[875]**

A. Yes.

Q. At 20 you referred to the background of the specific conductivity, that's something that you look at in terms of trying to figure out water quality?

A. It is a factor. It tells you the dissolved minerals in water. It is not a good indicator of water equality by itself.

Q. The specific conductivity at 20 was 45?

A. Yes.

Q. And number 30, station 30, the specific conductivity was 52; is that correct?
A. Yes.
Q. Looking at all the other stations that you sampled all of those readings on all the other sampling locations on this map everyone of them exceeds those background levels?
A. They are higher than those two numbers.
Q. Some of them, station number 9 gets up to 1700 doesn't it?
A. That's correct.
Q. That's about 34 times greater than the background levels?
A. About 30 times, yes.
Q. If we look at your background reference [876] at station 20 and station 30, and we look at your sulfate levels. The sulfate level at station 20 was 5.3 and at station 30 it was 6.4; is that right?
A. That's correct.
Q. If we look at all the other stations that you sampled, aside from the other reference station, everyone of those levels of sulfate everyone of them exceeds the background?
A. That's correct.
Q. Some of them like at station number it goes up to 1170 doesn't it?
A. Yes, it does.
Q. Station number 1, before it goes onto the Maloof property that goes up to 198?
A. That's correct.
Q. That's a good 40 times higher than your reference there?
A. That's correct.
Q. If we look at the pH, even accepting your 20 reference stream, if you look at the pH at station 20, it's 4.43 and at station 30 you have 4.19. Even 22 accepting your reference and your testing at station 19, it's lower than your reference; is that correct?
A. That's correct.
Q. Which is up here in this area and at [877] stations 1, 2 and 3, the pH there is even lower than your reference?
A. Actually at F-F it is slightly lower than 19.
Q. 1, 2 and 3 are certainly lower than your reference?
A. That's correct.
Q. Number 9, before it goes onto the McGill family property, that is certainly lower than your reference?
A. Yes.

Q. Now the aluminum level you had at station 20 was 1.46 and at station 30 it was .26 and if we look at the that background we see –

A. I don't believe the aluminum is that low.

Q. At which one?

A. At 20.

Q. At 20 you have 1.46; is that right?

A. I think at [] station 20 the aluminum value is .55.

Q. You're at .55 at station 20 and .26 at station 30?

A. Correct. No, I think you are looking at the wrong one.

Q. I realize they are hard to compare. **[878]** Aluminum is the first one here?

A. Yes.

Q. What was the aluminum level at background station 20?

A. The aluminum level in the filtered sample is 3.55 and at station 30 it was 1.2.

Q. And at station number 1 how high was it?

A. At station 1 the aluminum level was 29.3.

Q. That's roughly you have 60 times higher than the reference?

A. Roughly.

Q. Going down to the other side of the Johansen property to station 3 what was the aluminum level there?

A. At station 3 the aluminum level was 9.2.

Q. That's roughly 20 times higher than your reference?

A. 15 to 20, 18 times, something like that.

Q. Station number 9 what was your aluminum level at station number 9?

A. 29.

Q. How many times greater is that than your background reference?

A. Than station 20?

Q. Yes.

A. Approximately 50 times.

## EXAMINATION OF JOHN BRETT, EXECUTIVE WITH COMBUSTION ENGINEERING, BY DEFENDANT

**Tr. 941:3-9**

A. The first thing [Combustion Engineering did after taking back the mine] was to dismantle the plant and the facilities up there. That

went on through August of 1987. The next thing after that was done they met with the EPD and developed an approach for providing a new plan or amending the existing plan to reflect the conditions that we found when we took the property back over.

**Tr. 941:14-16**

A. . . . in a normal situation some reclamation would occur during the on-going mining operation and into the future. . . .

**Tr. 947:3-7**

Q. What plans were submitted in October of 1988?

A. There were several areas within the site that were identified by number for phased-in reclamation of each of those areas.

**Tr. 952:2-5**

A. The plan for that was by cutting off the water that came down to that area it would, essentially, dry it up and the seep would eventually stop.

**Tr. 958:6-13**

A. We have established at west pond 1 a small growth based on the greenhouse studies and the work that has been done. We are going back in there this year and putting more grass and more nutrients and mulching, using beginning grasses that we have established there to support additional growth. This is a continuing process. You have to keep coming back until the growth is fully established.

**Tr. 965:8-9**

A. . . . We never had a reason to believe there was a problem there [on the northside of the mountain].

## CROSS-EXAMINATION OF JOHN BRETT, EXECUTIVE WITH COMBUSTION ENGINEERING, BY PLAINTIFFS

**Tr. 979:14-17**

THE COURT: . . . it would be appropriate to examine the corporate defendant's representative about the history of the reclamation effort leading up to this consent order.

**Tr. 984:1-985:7**

Q. The event that occurred in 1991 was two-fold. Isn't it true that Combustion Engineering was informed by the State of Georgia that acid mine drainage with a pH of 2.9 was coming from the pyrite pond and leaving the mine site?

A. Yes.

Q. That was charged as a violation of law?

A. It was alleged as a violation of law.

Q. Of the Georgia Water Quality Standards?

A. Yes.

Q. It was recited in those charges that the pH of the water leaving the site was to be between 6 to 9?

A. That was in the permit.

Q. Likewise it was charged that the water being discharged from the holding point that the water had a pH of 3.2 that was being discharged; is that correct?

A. In October of 1991?

Q. No, sir, in the summer of 1991?

A. Yes, sir, there was a discharge of water with a pH of 3.2.

Q. That's very sick water, that's acid mine drainage?

A. That's acidic water[.] **[985]**

Q. That water went onto Ms. Goldman and Ms. Britt's land and down to Raleigh Long's land?

A. Yes.

Q. That was in violation of the permit that said any water released must have a pH between 6 and 9?

A. That's correct.

**Tr. 985:16-987:20**

Q. After these charges were made you yourself entered into negotiations with officials of the State of Georgia?

A. We met with officials of the State of Georgia in July of 1991.

Q. You yourself?

A. I was there.

Q. For Combustion Engineering?

A. Correct.

Q. You negotiated the consent order that we **[986]** have talked about?

A. Yes.

Q. That consent order was designed to resolve those charges of releasing water with a pH of less that 6?

A. The consent order was entered into to bring about a resolution of those charges, yes.

Q. Among other things Combustion Engineering agreed in that consent order, did they not, to submit a written commitment and plan with a schedule for the reclamation of the land for written approval within 20 days of that order?

A. That's correct.

Q. Combustion Engineering was to provide measures to remediate the acid mine drainage and the discharge of acid mine drainage from the site?

A. That's right.

Q. That was in August of 1991?

A. September 6th, 1991.

Q. Likewise on September 6th, 1991 Combustion Engineering agreed to submit studies and do an investigation to determine how to address the acid mine drainage problems?

A. That's correct.

Q. And likewise Combustion Engineering, in [987] September of 1991, agreed in this consent order to provide a time schedule and to begin reclamation to the west side of the sediment pond and upon its completion to eliminate the flow of acid mine drainage and establish a permanent vegetation cover; is that right?

A. We agreed to that and agreed to the design neutralization system.

Q. Which would permit continuous treatment of the discharge at outflow 001?

A. Yes.

Q. And outflow 001 is the freshwater drainage pond that flows into the creek that flows over Ms. Goldman's and Ms. Britt's land?

A. That's correct.

Q. That's the freshwater drainage pond and you were to treat that water and to prevent the discharge of acid mine drainage from that pond; is that correct?

A. That's correct.

**Tr. 990:2-991:5**

Q. How many times a year do you come here?

A. Four or five times a year. I get reports on a regular basis and when necessary I come down to review the site.

Q. Combustion Engineering doesn't have an office on site at Graves Mountain?
A. No.
Q. Is there a mailbox that Combustion Engineering has on the site?
A. We don't receive any mail there.
Q. Are there any full-time employees on that site?
A. No. Mr. Dotson and Mr. Williams are there at times.
Q. Is there anybody on site watching the site to make sure acid mine drainage doesn't get released from the site?
A. Mr. Williams and Mr. Dotson report their observations. They are there quite a bit.
Q. Mr. Dotson lives in Sandersville?
A. Yes.
Q. Probably 75 or 80 miles from the Combustion Engineering site?
A. I'm not sure of the exact milage. [991]
Q. Jerry Williams lives in Athens, Georgia?
A. Right.
Q. Is he a full-time employee of Combustion Engineering?
A. No, he's a consultant.

**Tr. 992:13-20**

Q. It is not Mr. Dotson's responsibility to monitor any water except that water leaving the holding pond; is that correct?
A. That's correct.

**Tr. 996:6-997:15**

Q. You know the acid mine drainage will come through the dirt at the dam?
A. Yes, but since the dams are on the side of the hill if you get a seep through there you observe an indication of the water coming, it's not going through.
Q. But that's coming through the dirt of the dam?
A. It is seeping through the dirt of the dam.
Q. You can see the seep and test it to see that it is very acidic?
A. You can test it and what it turns out to be that's what it is.
Q. You have a seep coming through the pyrite pond?
A. We have seen one seep at the pyrite pond and one seep at the tailings pond, yes.

Q. Have you tested the water flowing from the seep at the tailings pond on the northside that **[997]** flows onto the Maloof and Johansen land?

A. There was never an indication that there was a problem there until 1991.

Q. Did you do any testing before then?

A. Before 1991?

Q. Yes.

A. I have no record of those being tested.

Q. Have you looked at any state records to see what their tests showed?

A. No, sir.

Q. You are speaking [from] your own personal knowledge?

A. I'm speaking from my personal knowledge and what I have in the way of records that I have seen.

## EXAMINATION OF GERALD WILLIAMS, PRESIDENT OF RECLAMATION TECHNOLOGY, INC., BY DEFENDANT

**Tr. 1001:23-1002:1**

A. Here [in a hardrock mine] the ore body is situated and they mine the ore body. If you wanted 100,000 tons of ore you mine a million of tons of ore to extract 100,000 tons or ten percent of the ore body.

## CROSS-EXAMINATION OF GERALD WILLIAMS, PRESIDENT OF RECLAMATION TECHNOLOGY, INC., BY PLAINTIFFS

**Tr. 1009:7-10**

Q. You know the importance of controlling the acid mine drainage from mine sites and if it travels off-site you have a problem?

A. Yes.

**Tr. 1009:24-1011:10**

Q. In 1988 tell us all the tests that Combustion Engineering asked you to do to determine **[1010]** whether or not they had acid mine drainage going any to anybody else's property?

A. I wasn't doing any testing.

Q. You were not hired to do any testing?
A. We were looking at the tailings pond to revegetate the tailing pond.
Q. But you were not hired to look into any problem with acid mine drainage going onto other peoples property?
A. No.
Q. That wasn't your job?
A. No.
Q. That wasn't your job 1989?
A. No.
Q. In 1990 that wasn't your job?
A. No.
Q. In 1991, that wasn't your job dealing with acid mine drainage from the Combustion Engineering property onto other peoples property?
A. I was never involved in the water quality aspects on that site.
Q. Even today that's is not your job to deal with the problem of acid mine drainage going onto other peoples property?
A. Other than capping the pyrite pond. **[1011]**
Q. You have never been asked to do any testing of the water going onto other peoples property?
A. No.
Q. You have never been asked to monitor the water that goes from various points on the mine site onto other peoples property?
A. No.
Q. That just hasn't been your job?
A. That's correct.

**Tr. 1014:11-22**
Q. What's the pH of that water?
A. I don't know.
Q. You haven't tested it?
A. No.
Q. That's not your job?
A. I'm in land reclamation.
Q. It's not your job to come on the site if there are heavy rains to make sure there is no breach to the dam that might let tailings or acid mine drainage or sediment flow onto other peoples land?
A. No, that's not my job.

RE-EXAMINATION OF GERALD WILLIAMS, PRESIDENT OF RECLAMATION TECHNOLOGY, INC., BY DEFENDANT

**Tr. 1016:25-1017:8**

A. . . . Reclaiming [1017] a mine site means to bring it back to its original pre-mine condition. To stop the dust from flowing onto the neighbors' property.

Q. Revegetation and sloping what effect does it have on acid mine drainage?

A. Once you get your vegetation reestablished you can create a habitat to control the acid miine drainage and hopefully to eliminate it.

EXAMINATION OF JAMES WALLACE, PROFESSOR OF ETYMOLOGY AND ECOLOGY AT UNIV. OF GEORGIA, BY PLAINTIFFS

**Tr. 1039:18-24**

A. According to the EPA criteria this station 24 was moderately impaired and station 23 was severely impaired using EPA criteria based on the 8 metrics I use for the protocol.

Q. Was that on the Combustion Engineering property?

A. No, that was on Mr. Maloof's property.

**Tr. 1040:19-1041:5**

Q. Whose property is that on?

A. Mr. McGill's according to the map.

Q. What did you find there?

A. Do you want me to quote from what I put in my report?

Q. Just tell us what you saw?

A. That may be the worst stream I have seen in the state of Georgia. There was a limited amount of invertebrates, one or two types of animals. Despite a pretty decent flow there was no sign of microbial decomposition or the breakdown of leaves in the stream.

**Tr. 1042:21-1043:4**

Q. What was the health of the stream at that point?

A. In my opinion it was not very good. We started disturbing the stream bottom and the stream water turned to a milky-white chalky clay like material and leaf packs came to the top. Also there was no

signs of what we call shredder taxa which are invertebrates that feed on the decomposing leaves in a stream.

**Tr. 1043:9-14**

A. There was quite a bit of diversity [in the creek on the Goldman and Britt properties], but there were no EPT's and the taxa were absent. There were no cadisflies or stoneflies. There were a lot of beatles that are known to be tolerant to acidic conditions as well as some high chemical concentrations.

## JURY CHARGE

**Tr. 1161:1-22**

THE COURT: The general definition of trespass is an unlawful interference with a person's property, but the law is more specific concerning the interference with water in nonnavigable streams.

Under Georgia law a person commits a trespass if he does any one or more of the following acts regarding the water flowing on their property:

If he diverts a stream in whole or in part from its natural and usual flow.

If he obstructs a stream so as to affect its natural course or cause it to overflow and injure the land onto which it flows or any right connected to the land through which the water flows.

Or pollutes such a stream so as to decrease the value of the land through which the stream flows – that is, to decrease the land's value to the owner of that land.

I will tell you the phrase pollution of water means the man-made or man-induced alteration of chemical, physical, biological or radiological integrity. Those are the short and simple rules of law with respect to trespass.

## JURY VERDICT

**Tr. 1191:8-9**

THE COURT: The verdict form as to the expenses of litigation is $227,000.

## CROSS-EXAMINATION OF JOHN BRETT, EXECUTIVE WITH COMBUSTION ENGINEERING, BY PLAINTIFFS (PUNITIVE DAMAGES PHASE)

**Tr. 1198:1-1201:19**

Q. I believe your pay check comes from Asea Brown Boveri?

A. It comes [from] A B B Business Service Inc.

Q. Combustion Engineering was a public company before it was purchased by Asea Brown Boveri, Inc. ?

A. Yes, it was.

Q. As a public company it published financial data and information that one could readily obtain?

A. Yes, while it was a public company.

Q. What was [the] last year that it was a public company?

A. 1989.

Q. In 1989 all of the stock in [the] company was purchased?

A. That's correct.

Q. And it was purchased by Asea Brown Boveri, Inc.?

A. That's correct.

Q. They paid over one billion 400 million dollars cash for the company Combustion Engineering?

MR. BRISSETTE: I object to any testimony on the defendant's net worth. Under the Constitutional safeguards announced in the Haslett [1199] case under the Georgia statute it is unconstitutional to allow such evidence.

THE COURT: Thank you. Your objection is noted and overruled.

Q. How much was paid for Combustion Engineering by Asea Brown Boveri.

A. They paid one billion 600 million dollars.

Q. How much?

A. One billion 600 million dollars. It was a public tender offer.

Q. That was a cash purchase?

A. That was a cash purchase.

Q. The company is now wholly owned by the Asea Brown Boveri for one billion 600 million?

A. That was the money that was paid to the public stockholders. Combustion Engineering did not receive the money they paid that money to the public stockholders.

Q. Now Asea Brown Boveri is the sole owner of Combustion Engineering?

A. Yes.
Q. And they got that for one billion 600 million dollars?
A. Yes.
Q. Since that time they have not published [1200] any financial data for the general public?
A. No.
Q. They are no longer required, under the SEC rules, to publish that data with regard to Combustion Engineering as was required when it was a publicly traded company.
A. They ultimately publish financial data for it, but not for Combustion Engineering that's correct, sir.
Q. I would like to hand you a document marked P-46. Could you tell us what's P-46 is?
A. P-46 consist of the balance sheet and income statement for Combustion Engineering for the years 1991 and 1992.
Q. Do you have any more recent data than that?
A. The accountants record performance on a monthly basis, but I have not seen any financial statements in material more recent than this.
Q. Is that an audited statement?
A. No, sir.
Q. Do you know if that is done in accordance with the accounting rules of the SEC?
A. I don't know, sir, but I would not think so since it is not a publicly traded company. [1201]
Q. Did you know the rules that they follow for the evaluation of assets in that financial statement?
A. They are generally accepted accounting principles, but they do not have an independent third-party public auditor so therefore they cannot certify it is in accordance with generally accepted accounting principles with the normal letter that a public auditor would give.
Q. Does P-46 correctly state the sales, the gross sales figure, for Combustion Engineering for the years 1991 and 1992?
A. To the best of my knowledge it does.
MR. BELL: We tender into the evidence P-46.
MR. BRISSETTE: We object for the same reason stated before.
THE COURT: P-46 is admitted noting the objection.
(Plaintiffs' Exhibit 46 was received in evidence.)

**Tr. 1202:21-25**

A. We did not save any money. We have constructed the pyrites pond that work and cost about $86,000 and that slowed it down. That didn't stop it. Now, we have a piping system coming down from that area down to the freshwater pond. . . .

**Tr. 1203:4-9**

Q. Do you know of any particular technical reason why you could not have done that five or six years ago?

A. We didn't discover that particular seep until 1991. That specific measure is to address that particular seep

**Tr. 1206:13-20**

A. . . . On the 38 acre pond, which is west pond 2 he is putting a layer [of] topsoil in and he will be doing that during the month of August so we can get into the seeding and liming during the growing season this fall. I expect that we'll have grass growing there in the fall. Although we'll probably have to come back next year to continue to keep [it] going.

**Tr. 1208:9-17**

Q. Is Combustion Engineering still willing to spend the money necessary, in accordance with good practice, to reclaim the mine site out there?

A. Yes, we are. We have never put any limit or firm budget or any budget on what it would take to do the job. Any time there is a recommendation that is made we evaluate what we receive from the people that we have assigned to do the job and we have usually gone forward with it.

**Tr. 1209:14-20**

A. We had provided the state with a plan on how we would stop the seep at the pyrite pond. That was to cover it to seal it, to put some topsoil and lime there and to establish some growth there and we believe that would slow it down and ultimately stop it. Nobody could give us any guarantees as to how long that would take. . . .

**Tr. 1211:25-1213:6**

Q. Tell me every property owner downstream that Combustion Engineering has gone to and said we are releasing acid mine drainage

on your property and we are sorry. We want to do right. Can you name anyone you went to and told them you had polluted their creek?

A. We have not gone to anyone because we were not aware of the conditions that existed on their property.

Q. When you released of 12 million gallons of water a year ago onto the Goldman and Britt property tell me everybody you told that you had done that and apologized to?

A. We notified the State of Georgia EPD one day after the release occurred.

Q. How many of landowners that you dumped acid mine drainage into their stream did you ever tell?

A. None.

Q. You didn't tell anyone of the flood condition. How about the acid mine drainage?

A. That was the flood condition that I'm referring to. What happened is we had an excessive rainfall, over six inches in a two to 12 hour period, which caused an overflow condition at the freshwater pond and we notified the State of **[1213]** Georgia.

Q. But you didn't tell anyone you dumped it on them?

A. No, we did not contact the various landowners and tell them that there had been a release, that there had been a flood.

**Tr. 1215:11-1216:7**

Q. You agree as of today acid mine drainage is still flowing from the pyrite pond onto the McGill property?

A. There is a trickle of water from the pyrite pond, that's correct.

Q. That's acid mine drainage?

A. By definition that's acid mine drainage.

Q. And as of today the acid mine drainage goes from the Combustion Engineering property onto the Maloof property?

A. Under your definition of acid mine drainage that's true.

Q. You agree that the leaking from the berm on the west end has been going on for years, according to Paul Hall, and the acid mine drainage **[1216]** that goes from that seep goes into the creek that goes onto the Richard's property?

A. I don't recall Mr. Hall saying that, but to answer your question if there is seepage from that today, yes, that's correct. The piping system is going to connect the seep from there and the pyrite pond.

## EXAMINATION OF DR. CLAUDE TERRY BY PLAINTIFFS IN PUNITIVE DAMAGES PHASE

**Tr. 1216:24-1217:8**

Q. Do you have an opinion as to how much money it would cost Combustion Engineering from August 1987 until today, to correct the problems with acid mine drainage entering the plaintiffs' property using the techniques that are used by Combustion Engineering?

A. Yes, I do.

Q. What is that opinion?

A. Slightly over six million dollars, including chemicals.

**Tr. 1217:21-1218:22**

A. . . . Some of those techniques [that CE could have used to prevent acid mine drainage] would include reclaiming the area that you mine as you go along. To strip and reclaim each area as you go along which is typical and is usually included in mine reclamation plans. **[1218]**

One technique that has been used is lime material should be added to balance the potential for acidity in the soil so when you do have flooding in an area that will increase the pH of any runoff.

Another technique that has been used as an effective way of preventing acid runoff is to keep oxygen from coming in contact with potentially acidic material such as pyrite. One way of doing that is through the use of clay caps. . . .

Q. In your preparation for this case have you seen any evidence of any [of] those type of actions being undertaken by Combustion Engineering?

A. There has been some treatment to the ponds existing on the site, but as far as the water actually exiting the site that is going onto the plaintiffs property I have not seen any extensive use of those techniques, no.

## PLAINTIFFS' SUMMATION ON PUNITIVE DAMAGES

**Tr. 1226:1-20**

MR. BELL: You have to send them a message otherwise they'll just put another accountant on that project who will tell them that it's cheaper for us to poison somebody else's creek. They know what it will cost to get this site cleaned up and that's why they have continued

to cultivate a relationship with these bureaucrats.

They know that it costs a lot to treat your own garbage, your own waste, your own acid mine drainage. It's better to dump it on somebody else's land. You know the land ain't worth a whole lot and we'll get by.

There is only one way to balance the scales, and that is to send them a message. Send them the message that here in Georgia we respect a person's rights and their property whether they're big shots; whether they're just ordinary individuals; whether they're carpenters; brick layers; retired school teachers; we value their rights.

**Tr. 1238:3-1239:2**

MR. BELL: Ladies and gentlemen, you will have out with you some very important documents. You have heard the testimony about what this European company paid for this company in 1991, about two years ago. They paid one billion 600 thousand dollars. One percent of that is 16 million dollars.

It's like a man who went to court who had done wrong and he had $5,000 in his pocket. The court said you've done wrong and you need to be punished. The judge said you've done really bad and you've injured a lot of people and I want to hit you hard and he fines him $5,000. Or he might fine him $500, which is ten percent of his $5,000. Or he can fine him $50, which would be one percent. 16 million dollars in punitive damages to this company would be like a $50 fine to most folks.

One of the other documents you are going to have out with you will be the internal balance sheet for this company. In that document they show total sales of two billion two hundred thousand dollars a year. In one day they have total sales of around 6 million dollars. While we sat here in this courtroom their sales at that rate would have been about 54 million dollars.

. . .

**Tr. 1240:24-25**

MR. BELL: . . . By your verdict you can take the profit out of this or you won't. . . .

**Tr. 1241:18-19**

MR. BELL: . . . Return a verdict that will balance the scales and take the profit out of polluting. . . .

A77